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UTAH

## RECREATION WORKLOAD ANALYSIS

### AND PROGRAM ANALYSIS

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As part of a Management Project for the  
Management and Leadership Workshop

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## INTRODUCTION

A little background on the workload analysis system used herein is helpful prior to reading this project paper. The analysis is intended to be a manager's tool, a reference, and a baseline. It can be used 1) to review workload, budget, and tables of organization within Utah and 2) to demonstrate Utah's workload to offices outside the state. Effort has been invested to ensure that the analysis includes input from all districts and represents the best, most objective assessment possible of the recreation program.

Analysis focuses on work that is currently being done. It was initiated at each district office by asking recreation planners for a list of the major tasks that they are now doing. This list (Appendix G) was used to identify and evaluate indicators which would represent the work being done. After a statewide meeting to resolve differences, the result was the group of eight indicators used in this analysis.

Cyclic and short term workloads (such as planning) were recognized, but deliberately not included, because it is better to address them independently of the ongoing workload. Relatively minor workloads, such as information distribution for dispersed recreation, are not directly measured because they are fairly evenly spread across the state and do not comprise a major portion of the overall workload.

No value judgements are implied concerning the various types of recreation uses. In addition, recreation use by itself is not considered an indication of the need for management. Analysis focuses on what BLM does to manage the use, and thus on the workload. Many uses, particularly dispersed recreation uses, do not require or receive significant amounts of management. These uses are not being ignored or devalued. They simply do not represent a major workload.

A second area of focus is on demonstrated public demand that requires management. No value judgements are implied. For example, when a member of the public submits a permit application (regardless of the proposed use), they have demonstrated a desire to engage in an activity that requires permit management. That creates workload. Similarly, when the public demonstrates interest by using a facility, the facility must then be maintained (workload) to allow for continued use. The 8 indicators identified by Utah's recreation planners suggest that until these clearly demonstrated public demands for "managed" recreation are met, other workloads would be secondary.

Finally, in using the workload analysis it should not be viewed as a precision instrument. While it does represent a close approximation of overall workload, managers will need to incorporate any subjective judgements needed to make adjustments for budgeting or personnel decisions. The concept is that these subjective adjustments are better for line managers to identify with staff input, than for staff to incorporate in advance or build into a workload analysis. Subjective factors incorporated in advance would only serve to bias the common data base used by managers.



## INTRODUCTION

A little background on the worksheet analysis system used herein is helpful prior to reading this project paper. The analysis is intended to be a manager's tool, a reference, and a checklist. It can be used 1) to review workload, budget, and staff of organizations within Utah and 2) to demonstrate Utah's workload in relation to other states. Effort has been invested to ensure that the analysis includes input from all districts and represents the best, most objective assessment possible of the recreation program.

Analysis focuses on work that is currently being done. It was initiated at each district office by asking recreation planners for a list of the major tasks that they are now doing. This list (Appendix B) was used to identify and evaluate indicators which would represent the work being done. After a consensus meeting to resolve differences, the results were the group of eight indicators used in this analysis.

Direct and short term workloads (such as planning) were recognized, but deliberately not included because it is better to address them independently of the ongoing workload. Relatively minor workloads, such as information distribution for dispersed recreation, are not strictly measured because they are fairly evenly spread across the state and do not constitute a major portion of the overall workload.

In some judgments and inferences concerning the various types of recreation users. In addition, recreation use by itself is not considered an indicator of the need for management. Analysis focuses on what BLM does to manage the land, and that on the workload. Many more, particularly dispersed recreation areas, do not require or require significant amounts of management. These areas are not being ignored or devalued. They simply do not represent a major workload.

A second area of focus is on demonstrated public demand that requires management. No value judgments are required. For example, when a number of the goals is fulfilled a public recreation (regardless of the proposed user), they have demonstrated a desire to engage in an activity and require some management. That states workload. Similarly, when the public demonstrates interest in using a facility, the facility must be maintained (workload) to allow for continued use. The indicators identified by Utah's recreation planners suggest that land is being actively developed and public demands for "managed" recreation are met, other workloads would be necessary.

Finally, in using the worksheet analysis it would not be viewed as a prescription. While it does represent a close approximation of reality, workloads, managers will need to incorporate any subjective judgments needed to make adjustments for budgeting or personnel decisions. The concept is that these subjective adjustments are better for the manager to identify when staff input, both for staff in the field or in the office, is needed to make analysis. Subjective factors incorporated in advance would only serve to bias the current data used by managers.

# UTAH RECREATION WORKLOAD ANALYSIS AND PROGRAM EVALUATION

Utah has some of the finest recreational land in the United States, much of it administered by the Bureau of Land Management (BLM). Public interest in these lands focuses attention on BLM increasing the need to provide top notch service. Service to the public can be improved by providing managers with better organized, more useable information when making decisions.

Eight significant indicators have been isolated to track work being done in the recreation program. They are:

1. Number of Commercial Permits
2. Number of Noncommercial Permits
3. Facility Replacement Value in Current Dollars
4. Number of Visitor Hours (Length of Stay by Visitors)
5. Number of Facility Sites
6. Number of Visits (Number of People)
7. Fees Collected in Dollars
8. Number of Competitive Permits

These indicators were developed through forceful discussion involving all districts. Each district's recreation planner has indicated support for the outcome. Data and workload percentages, by type of work, are shown on pages 8 and 9. Using the indicators, recreation workload is spread as follows:

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Total
Workload Percentage	8	16	23	49	4	100

Program complexity is summarized by showing 1) the number of indicator categories with some workload, 2) the number of times a district has one of the two largest programs in a category, and 3) the number of District Recreation Management Areas within the Top 8 in at least one category (locations with a major program).

<u>District</u>	<u>Number of Categories With Points (8 possible)</u>	<u>Number of Times in the Top 2</u>	<u>Number of Top 8 RMAs and Total RMAs</u>
Salt Lake	8	1	2 of 6
Cedar City	8	3	3 of 8
Richfield	7	4	3 of 7
Moab	8	8	12 of 13
Vernal	4	0	1 of 4

Different types of workload are generally concentrated in a small number of resource areas, rather than being evenly spread. Each type of workload is also usually concentrated in two of the five districts. Visitation is the exception, being more evenly spread.

Three resource areas in Moab District manage 81 percent of the commercial



UTAH RECREATION WORKLOAD ANALYSIS  
AND PROGRAM EVALUATION

Utah has some of the finest recreational land in the United States, much of it administered by the Bureau of Land Management (BLM). Public interest in these lands has increased attention on the increasing need to provide the public with services. Service to the public can be improved by providing services with better organized, more reliable information when making decisions.

Eight significant indicators have been selected to track work being done in the recreation program. They are:

1. Number of Commercial Permits
2. Number of Noncommercial Permits
3. Facility Improvement Value in Current Dollars
4. Number of Visitor Hours (Based on Days by Vehicle)
5. Number of Facility Sites
6. Number of Visits (Number of People)
7. Fees Collected in Dollars
8. Number of Cooperative Permits

These indicators were developed through a thorough literature review and discussion. Each district's recreation program has indicated support for the indicator. Data and workload information, by type of work, are shown on pages 2 and 3. Using the indicators, recreation workload is shown as follows:

Workload	Percentage	Days	Hours	Visits	Number of People
100	100	100	100	100	100

Program completion is measured by showing if the number of indicator categories with work workload, if the number of times a district has one of the two largest programs in a category, and if the number of districts receiving management funds within the last 12 months are category (located with a major program).

District	Number of Categories with Workload (in Table 1)	Number of Times in Top 2	Number of Times in Top 2 and Total Sites
State Park	8	3	5 of 6
State Park	8	3	3 of 4
State Park	8	4	2 of 3
State Park	8	5	15 of 13
State Park	8	6	1 of 4

Efficient use of resources is essential and resources concentrated in a small number of resource areas, rather than being spread across many. Each type of workload is also usually concentrated in one of the five districts. Evaluation of the workload being done is shown below.

Three resource areas in each district (using 31 percent of the workload)



permits. Four resource areas (1 in Cedar City, 3 in Moab) manage over 99 percent of the noncommercial permits. Four resource areas (1 in Salt Lake, 1 in Cedar City, 1 in Richfield, 1 in Moab) do 85 percent of the competitive permitting.

Eighty-five percent of the facility investment is in three resource areas (1 in Richfield, 2 in Moab). Fifty-seven percent of the facility sites are found in four resource areas (2 in Richfield, 2 in Moab).

Thirty-three percent of the managed visitor hours occur in Price River Resource Area (Moab), while House Range Resource Area (Richfield) has 30 percent of the managed visits. With these exceptions, visitation is fairly evenly spread.

Ninty-three percent of the recreation fees collected are from four resource areas (1 in Richfield, 3 in Moab).

The statewide workload is split between recreation use management (4333), which accounts for about 67 percent, and recreation facility management (4712), which accounts for about 33 percent.

Four resource areas account for about 60 percent of the recreation workload in Utah. Another 7 resource areas together account for about 38 percent, while the remaining 2 percent is spread among 5 resource areas. The following table shows how resource area program size is spread.

<u>Recreation Program Size</u>	<u>Salt Lake</u>	<u>Cedar City</u>	<u>Richfield</u>	<u>Moab</u>	<u>Vernal</u>	<u>Total</u>
Large	-	-	1	3	-	4
Moderate	1	3	1	1	1	7
Small	1	1	2	-	1	5

Short narrative descriptions of the workload in each district are found on page 16, while narratives for each of the resource areas are found on pages 17 through 19.

Recreation Management Area (RMA) priorities were also developed using the workload analysis. The distribution is shown below.

<u>RMA Priority Group</u>	<u>Salt Lake</u>	<u>Cedar City</u>	<u>Richfield</u>	<u>Moab</u>	<u>Vernal</u>	<u>Total</u>
First	-	-	1	3	-	4
Second	-	2	1	2	-	5
Third	2	-	1	2	1	6
Fourth	2	2	-	4	1	9
Fifth	-	2	1	2	1	6
Sixth	2	1	4	-	1	8

Workload is compared with cost targets using narrative, tables and diagrams on pages 21 through 23. In addition, a more formal mechanism for allowing District Managers to review work planned by the state office is outlined. Some ideas for managing positions are also presented.

beverages. Four resource areas (1 in Cedar City, 3 in Hatch) manage over 99 percent of the noncommercial beverage. Four resource areas (1 in Salt Lake, 1 in Cedar City, 1 in Richfield, 1 in Hatch) do 82 percent of the commercial beverage.

Eighty-five percent of the facility investment is in three resource areas (1 in Richfield, 2 in Hatch). Fifty-seven percent of the facility areas are found in four resource areas (2 in Richfield, 2 in Hatch).

Thirty-three percent of the managed visitor hours occur in three resource areas (1 in Hatch, 1 in Richfield, 1 in Cedar City). White House Resource Area (Richfield) has 30 percent of the managed visits. With these exceptions, visitation is fairly evenly spread.

Ninety-three percent of the recreation fees collected are from four resource areas (2 in Richfield, 2 in Hatch).

The statewide workload is split between recreation and management (47/51), which accounts for about 67 percent, and recreation facility management (47/51), which accounts for about 33 percent.

Four resource areas account for about 60 percent of the recreation workload in Utah. Resource 7 resource areas together account for about 38 percent, while the remaining 2 percent is spread among 8 resource areas. The following table shows the resource area program area is spread.

Recreation Program Area	Salt Lake	Cedar City	Richfield	Hatch	Yarrow	Total
Large	1	1	1	2	1	4
Medium	1	1	1	1	1	7
Small	1	1	1	1	1	2

Short narrative descriptions of the workload in each resource area are found on page 10. While narratives for each of the resource areas are found on pages 11 through 12.

Recreation Management Area (RMA) analysis was also developed using the workload analysis. The distribution is shown below.

RMA Priority Area	Salt Lake	Cedar City	Richfield	Hatch	Yarrow	Total
First	1	1	1	2	1	4
Second	1	1	1	2	1	3
Third	1	1	1	2	1	3
Fourth	1	1	1	2	1	3
Fifth	1	1	1	2	1	3
Sixth	1	1	1	2	1	3

Workload is compared with cost targets using narrative, tables and diagrams on pages 11 through 12. In addition, a more formal mechanism for assigning District Managers to review work planned by the state office is required. Some ideas for managing positions are also presented.



The findings for the ten issues (pp. 22-26) identified by program evaluation are:

1. Field and office portions of a job should be funded together.
2. Generally, with diminishing budgets the last to go should be a) telephone, walk-in business, correspondence b) permitting and c) facility maintenance.
3. A base level funding concept (1 WM per RA) should not be used because no clear relationship exists between workload and the number of RAs or WMs.
4. Funding needs to be more closely tied to workload and program priorities.
5. Fees, or funding consistent with fees collected, should be returned to the resource area where they are generated.
6. The credibility and visibility of recreation in BLM needs to be improved.
7. Position location, structure and grade needs to be reevaluated.
8. Personnel skills, response to short term workloads and interdistrict cooperation could be improved by sharing people for specific, short term jobs.
9. Communication and coordination within the program needs improvement.
10. Program efficiency needs improvement in internal paperwork flow, quality control, and issuing guidance in order to free resources for operational work.

A summary of recommendations is presented below. For more detail, see pages 26 through 29.

Workload analysis related recommendations are: 1) Utah should work toward funding based on workload letting positions shift or change as needed 2) some recreation planner positions should be restructured, 3) facility values should be recalculated, 4) standards should be improved first for visitor use data in managed permit and facility areas and, 5) the number of Special Recreation Management Areas identified in Utah should be reduced.

Issue related recommendations not already discussed are: 1) sometimes seasonals should be substituted for cleanup contracts to get field presence, 2) seasonals with less than 3 seasons should be limited to GS 5, 3) task specific statewide recreation planner meetings are needed and 4) a formal process should be established for sharing program information, especially innovative ideas.

Some ideas for innovation or improvement include: 1) set funding and start recruitment for volunteers sooner, 2) send courtesy copies of short notice information requests to resource areas, 3) issue more recreation news releases, 4) establish Natural History Association outlets statewide, 6) increase the effort to distribute and promote the gifts catalog, 7) prepare Question and Answer Sheets for major programs, 8) prepare resource area Maintenance and Operations binders for facility sites, 9) use more standardized letters and post cards, and 10) prepare more issue papers and program overviews.



The findings for the two issues (pp. 52-53) identified by program evaluation are:

1. Field and office positions of a job should be funded together.
2. Generally, with distribution suggests the fact on to should be of employee, well-in business, correspondence of identified and (2) facility assistance.
3. A base level funding amount (1M per SA) should not be used because no clear relationship exists between workload and the number of SAs or SAs.
4. Funding needs to be more closely tied to workload and program priorities.
5. Tests, or funding consistent with test collected, should be referred to the resource area where they are generated.
6. The credibility and reliability of information in this needs to be improved.

1. Position location, structure and grade needs to be reevaluated.
2. Personnel skills, experience to show that workload and information management could be improved by sharing people for specific, short term jobs.
3. Communication and coordination within the program needs improvement.
4. Program efficiency needs improvement in internal paperwork flow, quality control, and funding guidance in order to free resources for operational work.
5. Summary of recommendations is presented below. For more detail, see pages 58 through 62.

Workload analysis related recommendations are: 1) Work should be shared; funding based on workload; funding positions shift on change as needed; 2) some recreation/planner positions should be restructured; 3) facility values should be reevaluated; 4) standards should be improved first for visitor use data in museum exhibit and facility areas and; 5) the number of Special Recreation Management Areas identified in this study be reduced.

Issues related to recommendations not already discussed are: 1) sometimes standards should be substituted for change controls to get field presence; 2) community with less than 5 percent should be limited to 10; 3) cost specific standards; recreation planner meetings are needed and 4) a formal process should be established for sharing program information, especially innovative ideas.

Some ideas for innovation or improvement include: 1) the funding and staff recruitment for volunteer summer; 2) small country course of short notice; information requests to recreation areas; 3) issues more recreation area releases; 4) establish Special Historic Recreation facilities; 5) increase the effort to distribute and promote the guide catalog; 6) prepare location and Answer Guide for major programs; 7) prepare resource area inventories and Operations binder for facility sites; 8) use more standardized letters and post cards; and 9) prepare more (area) reports and program overview.

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## RECREATION PROGRAM WORKLOAD ANALYSIS FOR DISTRICTS IN UTAH

With the passage of the Federal Land Policy and Management Act in 1976, recreation management became a full partner to the management of other uses on public lands. The increased public interest in recreation on lands administered by the Bureau of Land Management (BLM) is also evident in the increased recreation use, both for business and leisure, since 1976.

The importance to Utah of recreation management by BLM results from the large amount of land administered by BLM, high recreation values on much of that land and, the amount of use presently occurring. These factors provide BLM with both public visibility and increased management responsibility. With that responsibility also comes the need to improve the information available for making recreation decisions. Workload analysis and program evaluation can help meet that need.

The following workload analysis was done using the significant indicator approach. It is designed to be a working reference and a decision maker's aid. Analysis has been done by variously manipulating the data but no attempt was made to incorporate subjective factors or to prejudice future management decisions. The primary purpose is to provide a usable information base.

The overall workload for Utah and for each district is portrayed using data and percentages. Individual jobs are often represented by data in one or more workload categories. To "sum" these different workload categories, points were assigned. The model used to convert data to workload points is found in Appendix A. Weighting factors and significant indicator relationships were established by recreation planners in Utah. These relationships are clearly identified and discussed in detail in Appendix A.

### I. Identification of Significant Indicators

This section describes the workload indicators that were considered around the state. Indicators are grouped when the discussion centered around multiple indicators addressing related concepts or similar jobs. The discussion below is divided into three parts covering 1) indicators making the statewide consensus list 2) those incorporated under another indicator and 3) those rejected. The purpose and data source are given for indicators accepted and the outcome of the statewide meeting is discussed for those otherwise incorporated through compromises.





## A. Indicators Accepted

### 1. Permitting by type of permit

**Purpose:** The commercial, noncommercial (see also B.2 below), and competitive permit indicators represent 1) permit processing (activity planning, EAs, stipulation development, etc.), 2) specialized use supervision of permitted activities (rationing, regulating or scheduling use to meet management objectives), and 3) field inspections for compliance with permit stipulations.

**Data Source:** Yearly Recreation Management Information System (RMIS) submissions

### 2. Facility Sites and Replacement Value

**Purpose:** The replacement value of developed and semi-developed sites (using recreation inventory system definitions) represents both the amount of site maintenance work to be done and the dollar value of public investment in facilities (value at risk). The number of developed and semi-developed sites represents how many sites at different locations must be managed. The 2-to-1 weighting used in counting sites provides additional emphasis for site complexity beyond that provided by facility investment.

**Data Source:** Number of Sites by Type....Yearly RMIS Submission  
Replacement Value.....FY84 Prepackage Submission (temporary)  
.....Redeveloped Values (when available)

### 3. Visitation

**Purpose:** The visits indicator represents the number of people BLM affects through their management of permits or sites while visitor hours represent how much time those people spend using BLM managed lands. Together they represent the public contact workload and a measure of the degree to which visitor services should be provided in permit areas and at facility sites.

**Data Source:** Yearly RMIS Submissions

### 4. Fees Collected

**Purpose:** The fee indicator represents both the fee processing job and public sensitivity about receiving services they feel they are paying for.

**Data Source:** Yearly RMIS Submission





## B. Indicators Otherwise Incorporated

### 1. Camp Units

Outcome: As a compromise, Richfield agreed to drop camp units as an indicator if the other districts would agree 1) to weight developed sites heavier when counting sites, 2) to assign the Henry Mountains the highest point total when counting sites and 3) that Little Sahara was the largest, most complex developed site in the state. Although concern was expressed by Moab about the size and complexity of Canyon Rims, all districts agreed to the compromises.

### 2. Visitor Register Permits

Outcome: All districts agreed to count these "permits" at Escalante and Grand Gulch as noncommercial permits, but on a reduced basis. Ratios discussed ranged from 4 register permits equalling 1 noncommercial permit to 10 to 1. The group agreed that Cedar City and Moab should consult the resource areas involved and set the final ratio. The final ratio is 4 to 1. (Developed site permits are not counted as noncommercial permits. They are reported as a separate item in RMIS.)

## C. Indicators Considered But Rejected

These indicators are presented in the order of importance identified by a composite ranking drawn from the district meetings. Rationales for rejection are presented in Appendix A.

1. Undeveloped Sites
2. Special Designations
3. Activity Plans
4. Safety
5. Service Contracts
6. Undeveloped Facilities
7. Recreational Trails

## II. Workload Analysis

This section provides the data for comparisons among districts, and those comparisons. Analysis is limited to that which can be objectively drawn or inferred from the data and is made by comparing the distribution of work among Districts, Resource Areas and Recreation Management Areas. Program complexity, workload concentrations and the mix of workload is also made using the significant indicator categories.





### A. Recreation Workload For the Districts in Utah

The following table summarizes recreation workload data for Utah.

TABLE 1: Utah Recreation Data by District and Workload Indicator

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Total
Commercial Permits	4	9	0	72	0	85
Noncommercial Permits	8	140	1	2233	0	2382
Facility Value (\$000)	105	715	3,575	4,581	250	9,226
Visitor Hours	92,400	584,461	290,457	1,420,405	238,850	2,626,573
Facility Sites*	1D/2SD	2D/6SD	7D/7SD	4D/16SD	5SD	14D/36SD
Visits	9600	82,034	107,703	95,091	22,050	316,478
Fees Collected	\$1600	\$8350	\$40,269	\$111,917	0	\$162,136
Competitive Permits	7	3	4	6	0	20

\*D= A Fully Developed Facility under Land and Water Conservation Fund Act criteria

SD= A Semi-Developed Facility

Table 2 displays the percentage of the statewide workload in each district. The percentages are drawn directly from the data presented above. The table may be interpreted as depicting the percentage of each type of workload in each district.

TABLE 2: District Percentages of the Utah Recreation Workload by Type

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Total
Commercial Permits	4.7	10.6	0	84.7	0	100
Noncommercial Permits	0.3	5.9	0.0	93.8	0	100
Facility Value (\$000)	1.1	7.8	38.8	49.6	2.7	100
Visitor Hours	3.5	22.3	11.0	54.1	9.1	100
Facility Sites	6.3	15.6	32.8	37.5	7.8	100
Visits	3.0	25.9	34.0	30.1	7.0	100
Fees Collected	1.0	5.2	24.8	69.0	0	100
Competitive Permits	35.0	15.0	20.0	30.0	0	100





By assigning points to sum the eight different workload indicators, percentages can then be generated to show the overall recreation workload distribution. For more detail on how workload points were assigned and used, see Appendix A. The distribution of recreation workload is shown in Table 3.

TABLE 3: Percentage of the Overall Recreation Workload in Each District

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Total
Percentage	8	16	23	49	4	100

#### B. Program Complexity

Points in a workload category indicate involvement (large or small) in the workload type. Ranking within the top 2 districts indicates a heavier involvement than most of the other districts. The number of different locations where a district has a major involvement can be depicted using the Top 8 Recreation Management Areas (RMAs) from Appendix D. These lists identify eight RMAs out of the 38 in Utah which have the largest workload of one type (commercial permitting, facility management, etc.). Table 4 summarizes this information.

TABLE 4: Factors Denoting Recreation Program Complexity by District

<u>District</u>	<u>Types of Workload The District Has(8 possible)</u>	<u>Number of Times In the Top 2</u>	<u>Number of Top 8 RMAs and Total RMAs*</u>
Salt Lake	8	1	2 of 6
Cedar City	8	3	3 of 8
Richfield	7	4	3 of 7
Moab	8	8	12 of 13
Vernal	4	0	2 of 4

Salt Lake District had involvement with all workload types, but that involvement was comparatively small except in competitive permitting. In competitive permitting they issue 7 permits, the most issued by any district. There are 2 RMAs with significant recreation management activity, Bonneville Salt Flats and Pony Express Extensive.

Cedar City District also had involvement in all workload types. Their involvement in commercial permitting, noncommercial permitting (register permits), and use supervision (visitor hours--how long visitors stay) ranks them as having the second largest program in these categories. Significant recreation management activity occurs in Canyons of the Escalante, Dixie Extensive, Paria Canyon/Vermillion Cliffs and Paria/Hackberry.

Richfield District had involvement in all workload types except commercial permitting. They ranked first in the number of visits received (in a permit

By assigning points to the eight different workload indicators, percentages can then be generated to show the overall recreation workload distribution. For more detail on how workload points were assigned and used, see Appendix A. The distribution of recreation workload is shown in Table 2.

TABLE 2: Percentage of the Overall Recreation Workload in Each District

District	Percentage	Salz Lake	Cedar City	Richfield	Wood	Verona	Total
	8	18	23	40	4	100	

### B. Program Complexity

Points in a workload category indicate involvement (large or small) in the workload type. Ranking within the top 5 districts indicates a higher involvement than most of the other districts. The number of different indicators where a district has a major involvement can be decided using the Top 5 Recreation Management Areas (RMAs) from Appendix B. These five districts are out of the 10 in which have the highest workload of any type (commercial recreation, facility management, etc.). Table 3 summarizes this information.

TABLE 3: District Ranking Recreation Program Complexity by District

District	Type of Workload the District Ranks Highest	Number of Times in the Top 5	Number of Top 5 RMAs and Total RMAs
Salz Lake	6	7	2 of 8
Cedar City	8	3	2 of 8
Richfield	3	4	3 of 7
Wood	5	5	12 of 13
Verona	4	6	2 of 4

Salz Lake District had involvement in all workload types, but most involvement was in commercial recreation. In commercial recreation, Salz Lake ranked first in 7 points, the most ranked by any district. There were 2 RMAs with significant recreation management activity, Richfield and Salz Lake and from private recreation.

Cedar City District also had involvement in all workload types. Their involvement in commercial recreation, management of public and private facilities, and recreation facilities were high with 4 points each. Cedar City is having the second highest number of recreation management activity across the 10 districts, with 5 points. Cedar City and Richfield are tied for highest number of recreation management activity.

Richfield District had involvement in all workload types except commercial recreation. They ranked first in the number of visits received in a point



area or at a facility site) and second in facility value, number of facility sites and fees collected. Three Recreation Management Areas have significant activity: Little Sahara, Henry Mountain Extensive and House Range Extensive.

Moab District had involvement in all workload types, ranking first in 6 of them and second in visits and competitive permits. All of the RMAs ranked at least once in the Top 8, except for San Juan Extensive (12 of 13).

Vernal District had involvement in facility maintenance (facility value and number of facilities) and use supervision (visits and visitor hours). They did not rank among the top 2 districts in any workload category but Browns Park Recreation Management Area did the Top 8 listings.

### C. Workload Concentrations by Type of Work

The different types of workload each tend to be concentrated in three or four resource areas, although visitor hours and visits are more evenly spread. Using the Top 8 Tables in Appendix D, concentrations are easily identified.

1. Commercial permitting is concentrated in three resource areas in the Moab District: Price River, San Juan and Grand. These three resource areas manage 81.2 percent of the commercial permits in Utah.

2. Noncommercial permitting is concentrated in four resource areas which manage 99.6 percent of the noncommercial permits in Utah. Three resource areas in Moab District (San Juan, Price River and Grand) manage 93.7 percent of the permits while Escalante Resource Area (Cedar City) manages 5.9 percent.

3. Facility value is concentrated primarily in Grand Resource Area (Moab District) with 39.2 percent and House Range Resource Area (Richfield District) with 37.6 percent. The facilities of highest value are in Little Sahara RMA (House Range) and Canyon Rims (Grand). The next highest resource area is Price River (Moab District) with 8 percent of the state's facility value. All remaining resource areas are at less than 3 percent.

4. Visitor hours (length of stay by visitors) are more evenly spread than most workload indicators. Thirty-three percent of the managed visitor hours occur in Price River Resource Area (Moab District). Most are attributable to multiday trips in Desolation Canyon. The next 5 resource areas are grouped fairly closely. Escalante and Dixie Resource Areas in Cedar City District have 19.0 percent of the managed visitation, while San Juan and Grand Resource Areas in Moab District total 21.1 percent. House Range Resource Areas (Richfield) has 9.1 percent, while Diamond Mountain (Vernal) has 9.0 percent.

5. Facility sites are concentrated in four resource areas. Together they account for 57.3 percent of the sites in Utah. Henry Mountain and House Range Resource Areas in Richfield District have 30.8 percent of the sites. Grand and Price River Resource Areas in Moab District account for 26.5 percent.

area or as a facility area) and second in facility value, number of facility types and first collected. These Recreation Management Areas have significant activity levels. Henry Mountain Extensive and House Range Extensive.

Third District had involvement in all work types, ranking first in 5 of them and second in 4 others and competitive position. All of the WMA ranked at least once in the top 5, except for San Juan Extensive (12 of 17).

Fourth District had involvement in facility maintenance (facility value and number of facilities) and was supervisor (visiting and visitor hours). They also rank among the top 5 districts in the work type category but House Range Recreation Management Area did the top 5 listings.

### C. Recreation Concentrations by Type of Work

The different types of work done were used to be concentrated in three or four resource areas. Although visitor hours and visitor area were evenly spread, listing the top 5 tables in Appendix B, concentrations are easily identified.

1. Commercial recreation is concentrated in three resource areas in the West District: Price River, San Juan and Grand. These three resource areas manage 81.2 percent of the commercial points in State.

2. Management recreation is concentrated in four resource areas which manage 52.6 percent of the management points in State. These resource areas in West District (San Juan, Price River and Grand) manage 93.1 percent of the points while Extensive resource area (Grand City) manages 8.9 percent.

3. Facility value is concentrated primarily in Grand Resource Area (House District) with 32.7 percent and House Range Resource Area (Kitchikan District) with 30.6 percent. The facilities of highest value are in Little Salmon RM (House Range) and Canyon River (Grand). The next highest resource area is Price River (House District) with 8 percent of the state's facility value. All remaining resource areas are at less than 1 percent.

4. Visitor hours (number of days by district) are more evenly spread than most work types. Thirty-three percent of the managed visitor hours occur in Price River Resource Area (House District). Most are attributable to facility trips in House Range Extensive. The next 2 resource areas are Grand City (House Range) and Price River Resource Area in Grand City District have 18.0 percent of the managed visitor hours. While San Juan and Grand Resource Areas in West District have 11.1 percent and House Range Resource Area (Kitchikan) has 8.1 percent, while House Range Extensive (House) has 2.6 percent.

5. Facility value was concentrated in four resource areas. Together they account for 81.2 percent of the value in State. Henry Mountain and House Range Resource Areas in Kitchikan District have 30.8 percent of the value. Grand and Price River Resource Areas in West District account for 25.6 percent.



6. Managed visits (the number of people) are concentrated in House Range Resource Area in Richfield District, which alone accounts for 29.9 percent of the managed visitors. The next highest are Dixie Resource Area (Cedar City) at 17.1 percent and Price River, Grand and San Juan Resource Areas (Moab) which together manage 31.1 percent.

7. Price River, Grand and San Juan Resource Areas in Moab District and House Range Resource Area in Richfield District collect 93.3 percent of the fees. The three resource areas in Moab District collect 68.5 percent while House Range Resource Area (Richfield) collects 24.8 percent.

8. Competitive permitting is concentrated in four resource areas: Pony Express in Salt Lake District (35 percent), House Range in Richfield District (20 percent), Dixie in Cedar City District (15 percent), and San Juan in Moab District (15 percent). They issue 17 permits of the 20 permits in Utah (85 percent). The remaining three permits are spread among three resource areas.

#### D. Mix of the Statewide Workload By District

The number of facilities and their replacement value can be used to represent the recreation maintenance (4712) job. The other indicators address the management of recreation use (4333). The percentage mix of recreation use management and site maintenance for each district can be derived using workload points, as shown in Table 5.

TABLE 5: Mix of Recreation Use Management and Recreation Maintenance by District

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Utah
Use Management	80	75	51	72	53	67
Site Maintenance	20	25	49	28	47	33

While Table 5 shows the mix of workload within each district, Table 6 displays the percentage of the statewide use management (4333) and site maintenance (4712) workload found in each district.

TABLE 5: District Percentages of the Use Management (4333) and Site Maintenance (4712) Workloads

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Total
Use Management	10	17	17	53	3	100
Site Maintenance	5	12	35	42	6	100

The workload can be further broken down into 4 general types of work: permit management, site maintenance, use supervision and fee collection. Permit management includes the 3 types of permits: commercial, noncommercial and competitive. Site maintenance covers tasks appropriately charged to recreation maintenance (4712). Site maintenance could also affect facility

5. Managed Vistas (the number of people) are concentrated in House Range Resource Area in Richfield District, which alone accounts for 25.3 percent of the managed vistas. The next highest are State Resource Area (Cedar City) at 17.1 percent and Price River, Grand and San Juan Resource Areas (Utah) which together manage 21.1 percent.

1. Price River, Grand and San Juan Resource Areas in Richfield District and House Range Resource Area in Richfield District collect 21.3 percent of the total. The three resource areas in House Range District collect 26.2 percent while House Range Resource Area (Richfield) collects 22.8 percent.

8. Competitive gathering is concentrated in four resource areas: Price River in Salt Lake District (24 percent), House Range in Richfield District (20 percent), State in Cedar City District (16 percent), and San Juan in West District (12 percent). They total 17 percent of the 20 percent in Utah (85 percent). The remaining three percent are spread among three resource areas.

## 2. Use of the Statewide Workload by District

The number of employees and their replacement value are used to determine the percentage of workload by district. The other indicators address the management of recreation use (4332). The percentage of the workload management and the percentage for each district can be derived using workload values as shown in Table 2.

TABLE 2. Use of Recreation Use Management and Recreation Workload by District

	Utah	West	House	Richfield	Cedar City	Salt Lake
Use Management	27	23	22	21	18	30
Site Maintenance	13	47	38	44	25	20

Table 2 shows the mix of workload within each district. Table 2 displays the percentage of the statewide use management (4332) and site maintenance (4333) workload by each district.

TABLE 3. Relative Percentage of the Use Management (4332) and Site Maintenance (4333) Workload

	Utah	West	House	Richfield	Cedar City	Salt Lake
Use Management	100	100	100	100	100	100
Site Maintenance	48	100	172	162	139	67

The workload is 40 percent higher than Table 2 shows. Given of work: price management, site maintenance, use management and the collection of fees management requires the 3 types of general management, commercial and recreation. Site maintenance requires more specialized training in recreation management (4332). Site maintenance could also affect facility



sites located in permit areas. Use supervision would cover on-the-ground management of use in permit areas and at facility sites. Fee collection may occur either for permit areas or facility sites. Table 7 describes the mix of the recreation tasks using these four categories. See also Appendix G for a task list covering these workload types.

TABLE 7: District Breakdown by General Workload Type

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Utah
Permit Management	61	25	12	40	0	31
Site Maintenance	20	25	49	28	46	33
Use Supervision	14	43	29	22	54	27
Fee Collection	<u>7</u>	<u>7</u>	<u>10</u>	<u>10</u>	<u>0</u>	<u>9</u>
	100	100	100	100	100	100

#### D. Workload Analysis by Resource Area

##### 1. Resource Area Workload by Significant Indicator Points

The significant indicator model for resource areas and recreation management areas is in Appendix B. Data summaries used to develop workload points are in Appendix C. Workload points assigned for all resource areas are listed in Table 8, together with the resource area percentage of the total workload for Utah. The table can be interpreted to show a relative measure of program size.

TABLE 8: Recreation Program Size by Resource Area

	<u>Resource Area</u>	<u>District</u>	<u>Workload Points</u>	<u>Percent of the Total</u>
1.	San Juan	Moab	77	16
2.	Price River	Moab	76	16
3.	Grand	Moab	76	16
4.	House Range	Richfield	61	13
5.	Pony Express	Salt Lake	33	7
6.	Escalante	Cedar City	30	6
7.	Dixie	Cedar City	27	6
8.	Kanab	Cedar City	27	6
9.	Henry Mountain	Richfield	22	5
10.	Diamond Mountain	Vernal	22	5
11.	San Rafael	Moab	17	4
12.	Bear River	Salt Lake	7	1
13.	Book Cliffs	Vernal	4	1
14.	Beaver River	Cedar City	-	-
	Warm Springs	Richfield	-	-
	Sevier River	Richfield	-	-

sites located in permit areas. Use supervision would cover on-the-ground management of use in permit areas and at facility sites. Fee collection may occur either for permit areas or facility sites. Table 7 describes the mix of the recreation tasks using these four categories. See also Appendix B for a task list covering these workload types.

TABLE 7: District Breakdown by General Workload Type

Permit Management	Site Maintenance	Use Supervision	Fee Collection	Urban
61	38	17	7	100
25	25	43	7	100
15	49	29	10	100
40	29	25	10	100
0	46	54	0	100
33				
37				
9				

#### 6. Workload Analysis by Resource Area

##### 1. Resource Area Assigned by Significant Indicator Factor

The significant indicator model for resource areas and workload management areas is in Appendix B. Data summarized used to develop workload points are in Appendix C. Workload points assigned for all resource areas are listed in Table 8, together with the resource area percentage of the total workload for that. The table can be interpreted to show a relative measure of program size.

TABLE 8: Resource Area Program Size by Resource Area

Resource Area	District	Workload Points	Percent of the Total
1. San Juan	West	77	25
2. Upper River	West	79	26
3. Grand	West	79	26
4. Lower River	Richfield	81	27
5. Upper Canyon	East Lake	33	9
6. Escalante	Lower City	36	10
7. Utah	Lower City	37	10
8. Grand	Lower City	37	10
9. Upper Mountain	Richfield	35	9
10. Diamond Mountain	Verona	35	9
11. San Rafael	West	37	9
12. Lower River	East Lake	1	0
13. Lower City	Verona	6	1
14. Lower River	Lower City	6	1
15. Upper Springs	Richfield	6	1
16. Lower River	Richfield	6	1



As shown in Table 8 on the previous page, workload is not evenly spread among resource areas. Four resource areas account for about 60 percent of the recreation workload. Another 7 resource areas account for about 38 percent, while the remaining 2 percent of the workload is spread among 5 resource areas. Table 9 summarizes resource area program size by district.

TABLE 9: Resource Area Program Size by District

<u>Recreation Program Size</u>	<u>Salt Lake</u>	<u>Cedar City</u>	<u>Richfield</u>	<u>Moab</u>	<u>Vernal</u>	<u>Total</u>
Large	-	-	1	3	-	4
Moderate	1	3	1	1	1	7
Small	1	1	2	-	1	5

## 2. Resource Area Program Complexity

A similar type of analysis to that developed for the districts can be applied to resource areas using available data (Appendix C) and the Top 8 listings (Appendix D). Table 10 illustrates program complexity by resource area.

TABLE 10: Factors Denoting Recreation Program Complexity by Resource Area

<u>Resource Area</u>	<u>District</u>	<u>Number of Categories With Points</u>	<u>Number of Times in the Top 8 RAs</u>	<u>Number of Times With a RMA in the Top 8 RMAs</u>
Price River	Moab	8	8	13
San Juan	Moab	8	8	12
Grand	Moab	8	8	10
Escalante	Cedar City	7	7	7
House Range	Richfield	6	6	7
Dixie	Cedar City	7	6	4
Pony Express	Salt Lake	8	4	4
San Rafael	Moab	8	4	3
Diamond Mountain	Vernal	4	4	3
Henry Mountain	Richfield	5	3	2
Kanab	Cedar City	6	3	1
Bear River	Salt Lake	4	0	0
Book Cliffs	Vernal	4	0	0
Beaver River	Cedar City	0	0	0
Warm Springs	Richfield	0	0	0
Sevier River	Richfield	0	0	0

As shown in Table 5 on the previous page, workload is not evenly spread among resource areas. Four resource areas account for about 60 percent of the workload. Another 7 resource areas account for about 35 percent, while the remaining 2 percent of the workload is spread among 8 resource areas. Table 3 summarizes resource area program size by district.

TABLE 3: Resource Area Program Size by District

Resource Area	Program Size	East Lake	Cedar City	Richfield	West	Yarmouth	Total
Large	-	-	1	1	2	-	4
Medium	1	1	1	1	1	1	7
Small	1	1	1	-	-	-	3

### 3. Resource Area Program Complexity

A similar type of analysis to that developed for the districts can be applied to resource areas using available data (Appendix C) and the top 5 districts (Appendix D). Table 4 summarizes program complexity by resource area.

TABLE 4: Resource Area Program Complexity by Resource Area

Resource Area	District	Number of Categories With Potentials	Number of Times in the Top 5	Number of Times in the Top 5 with a 5 or less
Price River	West	8	8	12
San Juan	West	8	8	12
Grant	West	8	8	10
Escalante	Cedar City	7	7	7
Harris Ranch	Richfield	6	6	7
Dixie	Cedar City	7	4	4
Pony Express	East Lake	6	4	4
San Rafael	West	6	4	3
Diamond Mountain	Yarmouth	4	4	3
Henry Mountain	Richfield	3	3	3
Kanab	Cedar City	3	3	1
Bear River	East Lake	3	0	0
Boat Lift	West	4	0	0
Beaver River	Cedar City	0	0	0
New Springs	Richfield	0	0	0
Sevier River	Richfield	0	0	0



In reviewing Table 10 (page 15), a resource area with data showing in all 8 workload categories has had involvement in all types of permit management, in facility management and in fee collection. The second column gives an indication of how much involvement in those workload categories the resource area has, compared to other resource areas. The last column reveals the number of different locations where the resource area has heavy involvement in one of the workload types.

### 3. Resource Area Recreation Workload Narratives

The paragraphs that follow discuss program workload and complexity by resource area using the data from Appendix C (Resource Area and RMA Data), Appendix D (Top 8 Lists) and Appendix E (Facility Sites List).

#### Salt Lake District

Bear River Resource Area maintains, and conducts use supervision, for Birch Creek Picnic Area and a roadside stop at Little Creek.

Pony Express Resource Area is involved in all types of permitting, in maintaining Simpson Springs Campground, in use supervision and in fee collection. Their most intensive management is devoted to permit management at Bonneville Salt Flats and competitive permitting in the Extensive RMA.

#### Cedar City District

Data is not available to indicate significant involvement in recreation management by Beaver River Resource Area.

Dixie Resource Area is involved in commercial and competitive permitting. They maintain Red Cliffs Campground and Baker Dam Picnic Area, conduct use supervision and collect fees. Their most intensive involvement is in facility management and competitive permitting.

Kanab Resource Area is involved in commercial and competitive permitting. They maintain Ponderosa Grove Campground, Whitehouse Trailhead Ranger Station, and an interpretive site at the Paria Movie Set. They also conduct use supervision and collect fees. Their most intensive involvement is in facility management in the Paria Canyon vicinity.

Escalante Resource Area is involved in commercial and noncommercial (register permits) permitting. They maintain Calf Creek Campground, Deer Creek Campground and Devils Garden Picnic Area. They conduct use supervision and collect fees. They are intensively involved in permit management, facility management and fee collection for the Canyons of the Escalante RMA.

In reviewing Table 10 (page 15), a resource area with data showing in all 8 workload categories has had involvement in all types of permit management. In facility management and in the collection. The second column gives an indication of how much involvement in those workload categories the resource area has, compared to other resource areas. The last column reveals the number of different locations where the resource area has heavy involvement in one of the workload types.

### 3. Resource Area Recreation Workload Categories

The paragraphs that follow discuss program workload and complexity by resource area using the data from Appendix C (Resource Area and BWA Data), Appendix D (Top 8 Lists) and Appendix E (Facility Sites List).

#### Salt Lake District

Great River Resource Area maintains, and conducts the supervision, for Birch Creek Picnic Area and a roadside stop at Little Creek.

Pony Express Resource Area is involved in all types of permitting, in maintaining Spring Canyon Campground, in the supervision and in the collection. Their most intensive involvement is devoted to permit management at Huntsville Salt Pile and competitive permitting in the Extensive BWA.

#### Great City District

Data is not available to indicate significant involvement in recreation management by Great River Resource Area.

Great Resource Area is involved in commercial and competitive permitting. They maintain Great City Campground and Salt Lake Picnic Area, conduct the supervision and collect fees. Their most intensive involvement is in facility management and competitive permitting.

Kanab Resource Area is involved in commercial and competitive permitting. They maintain Fort Huachuca Campground, Whitehouse Trailhead Ranger Station, and an interpretive area at the Fort Huachuca Trail. They also conduct use supervision and collect fees. Their most intensive involvement is in facility management in the Fort Huachuca area.

Escalante Resource Area is involved in commercial and noncommercial (English permit) permitting. They maintain Cliff Creek Campground, Deer Creek Campground and Dixie Valley Picnic Area. They conduct use supervision and collect fees. They are intensively involved in permit management, facility management and the collection for the Canyon of the Escalante BWA.



### Richfield District

House Range Resource Area is involved in competitive permitting and facility maintenance for Oasis, White Sands and Jericho Campgrounds in Little Sahara, for the CCC Campground and for an interpretive site at Floyd Station. They also conduct use supervision and collect fees. They are intensively involved in facility management, competitive permitting and fee collection at Little Sahara RMA. They also are intensively involved in competitive permitting in the Extensive RMA.

Data is not available to indicate significant involvement in recreation management by Warm Springs Resource Area.

Data is not available to indicate significant involvement in recreation management by Sevier River Resource Area.

Henry Mountain Resource Area issued one noncommercial permit and is involved in facility maintenance at Starr Springs, Lonesome Beaver, Dandelion Flat, and McMillian Springs Campgrounds. They also maintain Hog Springs Picnic Area, Airplane Springs Campsite, and Wolverton Wheel interpretive site. At present, NPS is maintaining Halls Overlook. They are intensively involved in facility management.

### Moab District

Price River Resource Area is involved in commercial, noncommercial, and competitive permitting. They maintain Sand Wash Ranger Station, Nefertiti Boat Ramp, Swaseys Rapid Boat Ramp, Cleveland Lloyd Dinosaur Quarry Visitor Center and Picnic Area, Price Canyon Campground and Cedar Mountain Picnic Area. They also conduct use supervision and collect fees. In Desolation Canyon RMA, they are intensively involved in commercial permitting, noncommercial permitting, facility management, and fee collection. At Cleveland Lloyd, they are intensively involved in facility management. In the Extensive RMA, they are intensively involved in competitive permitting, facility management, and fee collection.

San Rafael Resource Area is involved in commercial, noncommercial (1), and competitive permitting. They also maintain San Rafael Bridge Campground, conduct use supervision and collect fees. They are intensively involved in commercial permitting on the San Rafael River and in competitive permitting in the Extensive RMA.

Grand Resource Area is involved in commercial, noncommercial, and competitive permitting. They also maintain Fisher Towers Picnic Area, Big Bend Boat Ramp, Westwater Ranger Station, Windwhistle Campground, Hatch Point Campground, Needles Overlook, Anticline Overlook, Canyonlands Overlook, and JC Park Picnic Area. They conduct use supervision and collect fees. In Colorado River RMA, they are intensively involved in commercial permitting, noncommercial permitting, facility management and fee collection. In Canyon Rims RMA, they are intensively involved in facility management. In the Extensive RMA, they are intensively involved in competitively permitting.





San Juan Resource Area is involved in commercial, noncommercial, and competitive permitting. They maintain Kane Gulch Ranger Station, Butler Wash Overlook, Mule Canyon interpretive site and Sand Island Boat Ramp. They also conduct use supervision and collect fees. In the San Juan River RMA, they are intensively involved in commercial permitting, noncommercial permitting, competitive permitting, and fee collection. In Grand Gulch RMA, they are intensively involved in noncommercial permitting (register permits) and facility management. In Dark Canyon RMA, they are intensively involved in commercial permitting and fee collection.

### Vernal District

Diamond Mountain Resource Area is involved in facility maintenance and use supervision at the John Jarvie Interpretive Site, Indian Crossing Boat Ramp, Bridge Hollow Boat Ramp and Pelican Lake Boat Ramp. They are intensively involved in facility management in Browns Park RMA.

Book Cliffs Resource Area is involved in facility management and use supervision at Musketshot Springs Roadside Site.

### E. Recreation Management Area Priorities

Recreation Management Areas (RMAs) can also be placed into priority groups based on program size. A table showing the priority groupings for RMAs is found in Appendix F. Workload points were assigned using the data from Appendix C. A model, similar to that used on a statewide basis, was then used to generate RMA rankings (See Appendix B). The distribution of RMAs by priority group and by district is shown in Table 11.

TABLE 11: Distribution of Recreation Management Areas by District and Priority

<u>RMA Priority Group</u>	<u>Salt Lake</u>	<u>Cedar City</u>	<u>Richfield</u>	<u>Moab</u>	<u>Vernal</u>	<u>Total</u>
First	-	-	1	3	-	4
Second	-	2	1	2	-	5
Third	2	-	1	2	1	6
Fourth	2	2	-	4	1	9
Fifth	-	2	1	2	1	6
Sixth	2	1	4	-	1	8

There are four RMAs that fall into the group with the largest workloads in the state. As with the resource areas, three are in Moab and one in Richfield. Together these four RMAs account for 39 percent of the state's workload. Workload points range from 53 to 40.

There is a clear break of 13 points between the first and the second group of RMAs. Point totals for these five RMAs range from 27 to 21, while the group as a whole represents about 26 percent of the statewide workload.

San Juan Resource Area is involved in commercial, noncommercial, and competitive permitting. They maintain Kane Gulch Ranger Station, Butler Wash Overlook, Hole Canyon Interpretive Site and Island Forest Camp. They also conduct vegetation and collect data. In the San Juan River RMA, they are intensively involved in commercial permitting, noncommercial permitting, competitive permitting, and fee collection. In Grand Gulch RMA, they are intensively involved in noncommercial permitting (vegetation permits) and fee collection. In Dark Canyon RMA, they are intensively involved in commercial permitting and fee collection.

Forest Districts

Blind Mountain Resource Area is involved in facility maintenance and use supervision at the John Jay's Interpretive Site, Indian Crossing Boat Camp, Bridge Hollow Boat Camp and Pelican Lake Boat Camp. They are intensively involved in facility management in Grand Park RMA.

Rock City Resource Area is involved in facility management and use supervision at Wahington Springs Recreation Site.

E. Recreation Management Area Priorities

Recreation Management Areas (RMAs) can also be placed into priority groups based on program size. A table showing the priority groupings for RMA is found in Appendix 2. Workload points were assigned using the data from Appendix C. A model, similar to that used in a statewide study, was then used to generate RMA rankings (see Appendix B). The distribution of RMAs by priority group and its district is shown in Table 11.

TABLE 11: Distribution of Recreation Management Areas by District and Priority

RMA Priority Group	Salt Lake	Utah City	Richfield	Moab	Grand	Total
First	1	1	1	2	1	6
Second	1	2	1	2	1	7
Third	1	1	1	1	1	5
Fourth	1	1	1	1	1	5
Fifth	1	1	1	1	1	5
Sixth	1	1	1	1	1	5

There are four RMAs that fall into the group with the largest workload in the state. As with the resource areas, there are in Moab and one in Richfield. Together these four RMAs account for 25 percent of the state's workload. Workload points range from 25 to 40.

There is a clear break of 13 points between the first and the second group of RMAs. Total workload for these five RMAs range from 25 to 31, while the group as a whole represents about 20 percent of the statewide workload.



There is, again, a clear break of 5 points between the second and the third groups, but from this group down point breaks are more arbitrary. Workload points in the third group, consisting of six RMAs, range from 17 to 10. These five RMAs account for about 16 percent of the statewide workload.

The fourth group (9 RMAs) generates 14 percent of the recreation workload in Utah. Workload points range from 9 to 6.

The RMAs in the fifth group have point totals of either 3 or 4. These six RMAs generate 5 percent of the statewide workload.

The sixth group is composed of 8 RMAs with no workload points. Four RMAs, of the eight, are within three resource areas that have no ranking RMAs.

### III. Applications of the Workload Analysis

#### A. Budget Application

Many of the budget applications are obvious. One of the principal strengths of the indicators developed at the statewide meeting is their focus on external, public-generated items. The indicators reflect a need for managed recreation which the public has demonstrated by applying (permits) and/or making use of a site which requires maintenance. In using these indicators for budgeting, the budget should be responsive to public demands.

Workload analysis can provide a basis for making initial budget allocations. Where deviations from the apparent relationship between workload and budget occur, clear and explicit reasons can then be identified and evaluated. Relative workload rankings for recreation management areas can also be used to determine priorities for activity planning and specific projects.

Recreation program cost targets for the 5 Districts in FY 87 are shown in Table 12. The apparent relationship between workload and 1987 budget allocations is portrayed in the diagrams on the following page.

TABLE 12: Recreation Program Cost Targets by District

	Subactivity 4333 Use Management (Percent of Total)	Subactivity 4712 Site Maintenance (Percent of Total)	Total 4333 & 4712 (Percent of Total)
Salt Lake	\$ 44,700 (9%)	\$ 26,300 (8%)	\$ 71,000 (8%)
Cedar City	\$110,900 (22%)	\$ 67,400 (20%)	\$178,300 (21%)
Richfield	\$126,000 (25%)	\$109,400 (33%)	\$235,400 (28%)
Moab	\$185,700 (37%)	\$106,600 (32%)	\$292,300 (35%)
Vernal	\$ 34,200 (7%)	\$ 25,400 (8%)	\$ 59,600 (7%)

There is, again, a clear break of 5 points between the second and the third groups, but from this group down point breaks are more arbitrary. Workload points in the third group, consisting of six RMA's, range from 11 to 10. These five RMA's account for about 10 percent of the statewide workload.

The fourth group (5 RMA's) generates 14 percent of the statewide workload in Utah. Workload points range from 5 to 6.

The fifth in the fifth group have point totals of either 5 or 4. These six RMA's generate 2 percent of the statewide workload.

The sixth group is composed of 3 RMA's with no workload points. Four RMA's, of the eight, are within three resource areas that have no ranking RMA's.

### III. Application of the workload analysis

#### A. Budget Allocation

Many of the budget allocations are obvious. One of the primary strengths of the workload analysis is the statewide ranking in their focus on workload, which is generated from the workload points. The workload points reflect a need for workload reduction which the workload has demonstrated by applying (points) and/or setting up of a ratio which requires reduction. In using these indicators for budgeting, the budget should be responsive to public demand.

Workload analysis can provide a basis for making initial budget allocations. Where allocations from the statewide ranking between workload and budget, clear and explicit reasons can then be identified and evaluated. Relative workload ranking for workload management areas can also be used to determine priorities for activity planning and specific projects.

Workload analysis can provide a basis for the 5 RMA's in FY 87 are shown in Table 10. The workload analysis between workload and 1987 budget allocations is portrayed in the diagram on the following page.

#### Table 10: Workload Analysis by District

	Workload Points (Total)	Workload Points (Per RMA)	Total (FY 87)
Statewide	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Utah	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Alaska	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Idaho	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Montana	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Wyoming	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Nebraska	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
South Dakota	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
North Dakota	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Minnesota	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Wisconsin	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Illinois	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Indiana	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Michigan	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Ohio	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Pennsylvania	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Delaware	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Maryland	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Virginia	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
West Virginia	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Kentucky	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Tennessee	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Mississippi	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Alabama	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Georgia	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Florida	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
South Carolina	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
North Carolina	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Arkansas	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Louisiana	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Missouri	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Iowa	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Nebraska	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Kansas	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Oklahoma	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Colorado	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
New Mexico	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Arizona	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Nevada	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
California	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)
Hawaii	2,71,000 (1987)	2,71,000 (1987)	2,71,000 (1987)



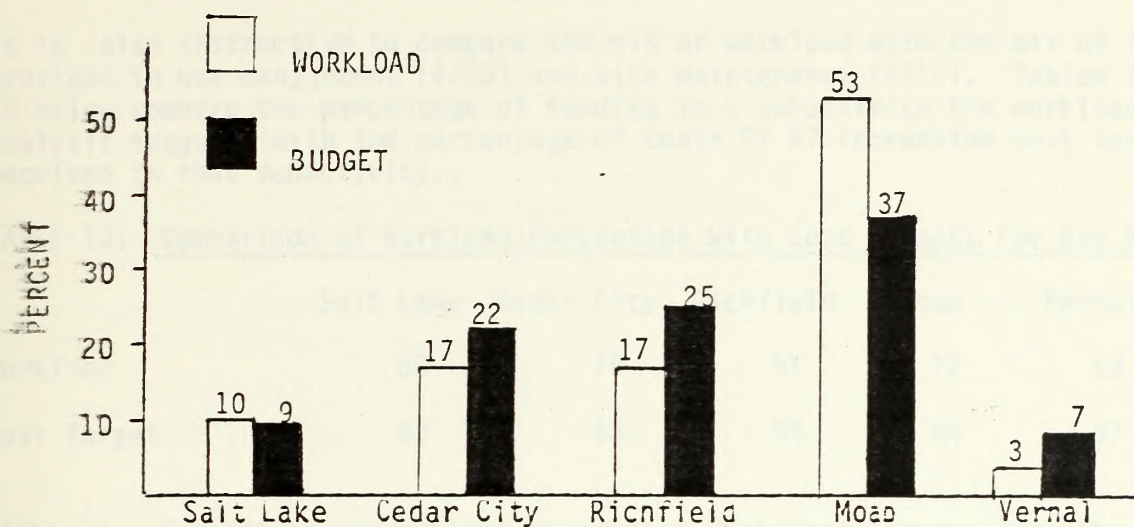
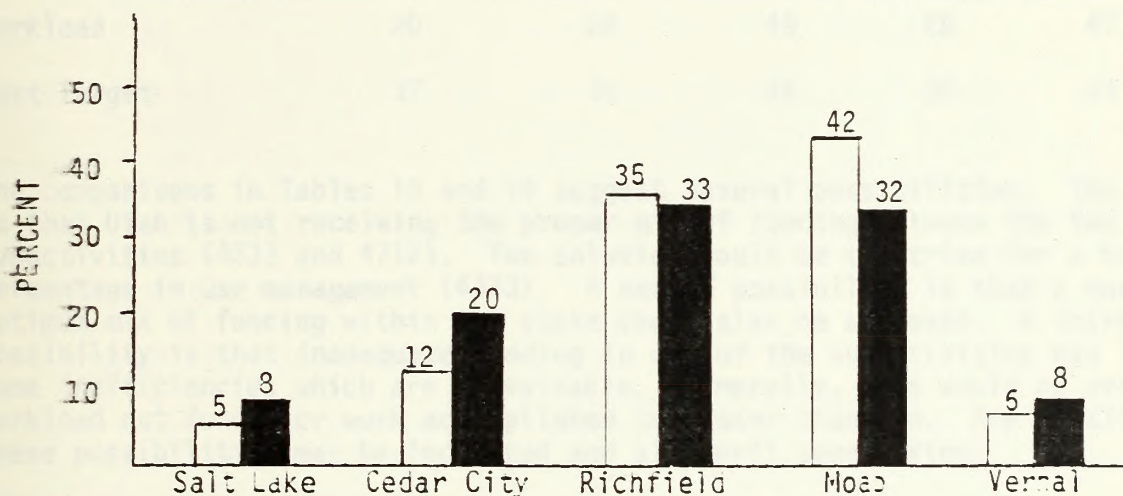
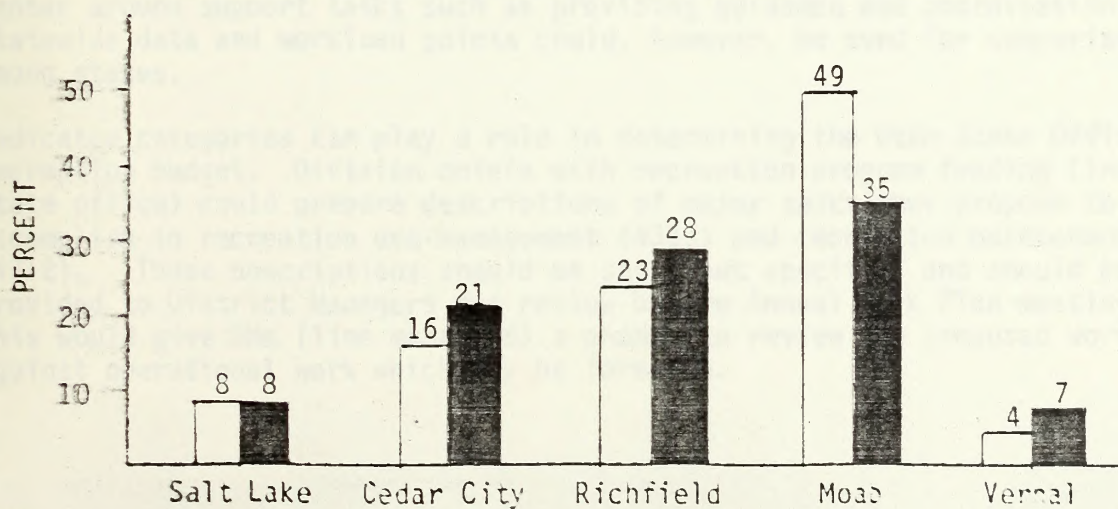
FIGURE 1: Bar Chart Showing Workload and Budget For Use Management (4333)FIGURE 2: Bar Chart Showing Workload and Budget for Site Maintenance (4712)FIGURE 3: Bar Chart Showing Workload and Budget for the Recreation Program

FIGURE 1: Bar Chart Showing Workload and Budget for Site Maintenance (6/20/21)

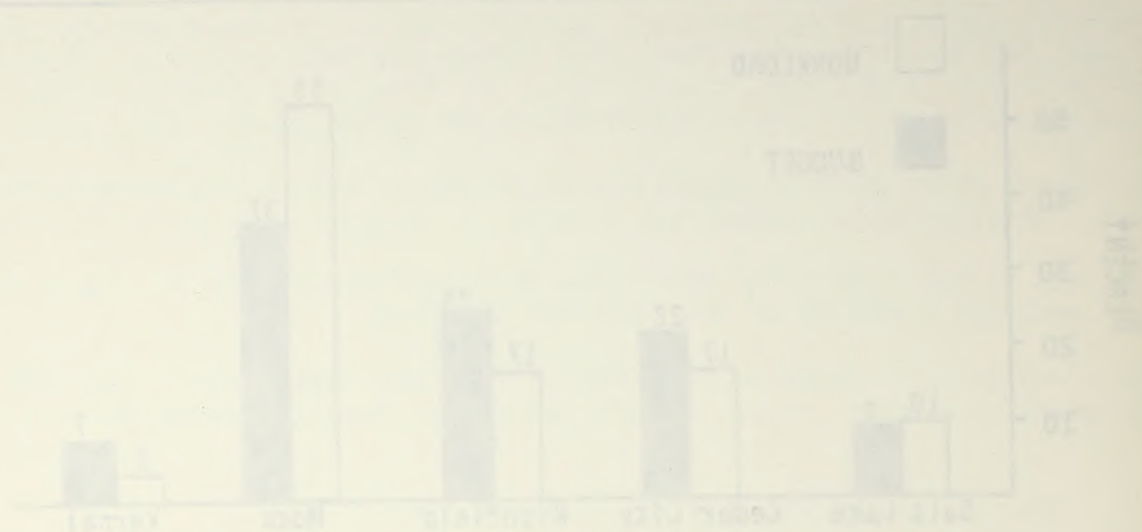
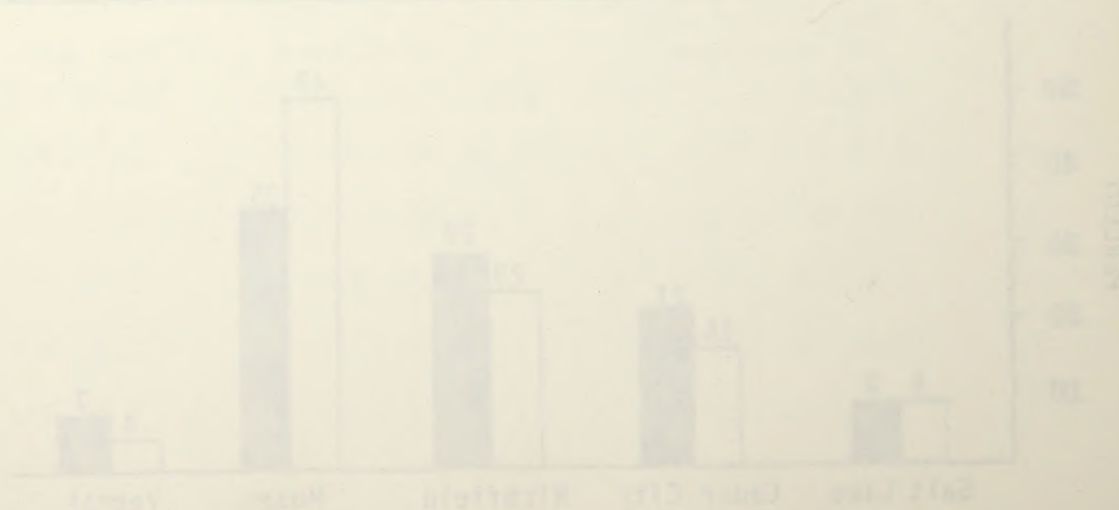


FIGURE 2: Bar Chart Showing Workload and Budget for Site Maintenance (6/21/21)



FIGURE 3: Bar Chart Showing Workload and Budget for the Security Program





It is also instructive to compare the mix of workload with the mix of funding provided in use management (4333) and site maintenance (4712). Tables 13 and 14 below compare the percentage of funding in a subactivity the workload analysis suggests with the percentage of their FY 87 recreation cost targets received in that subactivity..

TABLE 13: Comparison of Workload Percentage With Cost Targets for Use Management (4333)

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Utah
Workload	80	75	51	72	53	67
Cost Target	63	62	54	64	57	60

TABLE 14: Comparison of Workload Percentage With Cost Targets for Site Maintenance(4712)

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Utah
Workload	20	25	49	28	47	33
Cost Target	37	38	46	36	43	40

The comparisons in Tables 13 and 14 suggest several possibilities. The first is that Utah is not receiving the proper mix of funding between the two subactivities (4333 and 4712). The solution would be to strive for a higher percentage in use management (4333). A second possibility is that a more optimum mix of funding within the state could also be achieved. A third possibility is that inadequate funding in one of the subactivities has led to some inefficiencies which are unavoidable. Generally, this would be evident as workload not funded or work accomplished to lesser standard. Any or all of these possibilities may be indicated and all merit some review.

The significant indicator approach is less helpful in determining how much of the state's budget to retain in the state office. This is because the analysis focuses on operational work while the principal roles of the state office center around support tasks such as providing guidance and coordination. Statewide data and workload points could, however, be used for comparisons among states.

Indicator categories can play a role in determining the Utah State Office recreation budget. Division chiefs with recreation program funding (in the state office) could prepare descriptions of major tasks they propose to accomplish in recreation use management (4333) and recreation maintenance (4712). Those descriptions should be short but specific, and should be provided to District Managers for review before Annual Work Plan meetings. This would give DMs (line managers) a chance to review the proposed work against operational work which may be foregone.

It is also instructive to compare the mix of workload with the mix of funding provided in the management (4333) and site maintenance (4312). Table 12 and 13 below compare the percentage of funding in a subactivity the workload analysis suggests with the percentage of total FY 87 recreation cost targets recorded in that subactivity.

TABLE 12: Comparison of Workload Percentage With Cost Targets for Use Management (4333)

Workload	Cost Target	Self Lake Cedar City Richmond Hobbs Vermont Utah
80	63	75 72 63 67

TABLE 13: Comparison of Workload Percentage With Cost Targets for Site Maintenance (4312)

Workload	Cost Target	Self Lake Cedar City Richmond Hobbs Vermont Utah
20	37	25 48 28 43

The comparison in Tables 12 and 13 suggest several possibilities. The first is that Utah is not reflecting the greater mix of funding between the two subactivities (4333 and 4312). The solution would be to strive for a higher percentage in use management (4333). A second possibility is that a more uniform mix of funding within the state could also be achieved. A third possibility is that management funding in one of the subactivities has led to some inefficiencies which are unavoidable. Generally, this would be evident as workload not funded or work accomplished at below standard. Any or all of these possibilities may be indicated and will merit some review.

The significant indicator approach is less helpful in determining how much of the state's budget to retain in the state office. This is because the analysts focus on expenditures with the principal roles of the state office. Center around agency tasks such as providing guidance and coordination. Statewide data and workload points could, however, be used for comparisons among states.

Indicator categories can play a role in determining the Utah State Office recreation budget. Districts start with recreation program funding in the state office, then provide allocations of major tasks they propose to accomplish in recreation the management (4333) and site maintenance (4312). These allocations should be short but specific, and should be provided to District Managers for review before annual work plan meetings. This would give the (1) the manager a chance to review the proposed work against operational work which may be foregone.



Using state office narratives would also 1) emphasize the role of line managers (rather than program leaders) in budget decisions 2) improve responsiveness to the district needs, and 3) provide districts and resource areas with a better idea of what the state office is doing. Sample narratives follow:

1. Produce written guidance for the districts by     (date)     on how to implement Off Road Vehicle (ORV) planning decisions.
2. Prepare and present a training workshop for statewide implementation of ORV planning decisions by     (date)    .
3. Present a position paper to the Washington Office (WO) on why fees should be returned to the area where they are generated.
4. Prepare a written request for the WO asking permission to use flat rate fees from the fee schedule for areas with sufficient use and passenger charges information to allow for averaged appraisals.
5. Personal presentations will be made to at least 12 universities or interest groups in an effort to develop volunteers for the Districts.

Vague statements like "coordinate the statewide ORV program" should not be used. It would be helpful if the SO work statements were organized by workload categories and clearly supported commonly recognized operational tasks or task groupings. The task list developed at district meetings around the state is included in Appendix G as an aid. It should be recognized that not all tasks will be captured at the state office level, but they cannot be captured at any organizational level.

#### B. Personnel Applications

Because the workload analysis addresses program size and complexity, it should also help managers in formulating and adjusting Tables of Organization. By comparing resource areas, a manager can evaluate whether a program is sufficiently large and/or complex to justify a recreation planner position. Beyond that, the manager could get some idea of how much of the position's time should be devoted to recreation by comparisons with other resource areas and expected budgets.

Because the analysis gives information about program size and complexity, it may serve as an aid to position classifiers in evaluating position grade. This application, however, becomes complicated where positions are designed to handle multiple programs (as are most recreation planner positions). Grade determinations may then also be affected by the size and complexity of the other programs and the degree of complexity introduced by handling multiple programs. Considerable interest and concern was expressed in all the district meetings concerning "multi-hat" positions, because most positions devoted to recreation are also involved with wilderness and other programs.

Using state office narratives would also emphasize the role of the managers (rather than program managers) in budget decisions. To improve responsiveness to the district needs, and to provide districts and resource areas with a better idea of what the state office is doing, sample narratives follow:

1. Provide written guidance for the districts by (date) on how to implement Off Road Vehicle (ORV) planning decisions.

2. Prepare and present a training workshop for statewide implementation of ORV planning decisions by (date).

3. Present a position paper to the Washington Office (WO) on why laws should be retained in the areas where they are questioned.

4. Prepare a written request for the WO asking permission to use flat rate fees from the WO schedule for areas with sufficient use and passenger charges information to allow for averaged expenditures.

5. Personal presentation will be made to at least 12 interested or interested groups in an effort to develop volunteers for the districts.

Value statements like "Coordinate the statewide ORV program" should not be used. It would be helpful if the 20 word statements were organized by workload categories and clearly supported commonly recognized operational tasks or groupings. The task first developed at district meetings around the state is included in Appendix B as an aid. It should be recognized that not all tasks will be carried out at the state office level, but they cannot be carried out at any organizational level.

## 6. Personal Activities

Because the workload analysis addresses program size and complexity, it should also help managers in formulating and adjusting tables of organization. By comparing resource areas, a manager can evaluate whether a program is sufficiently large to justify a separate planning position. Beyond that, the manager could get some idea of how much of the position's time should be devoted to interaction by comparison with other resource areas and expected budgets.

Because the analysis gives information about program size and complexity, it may serve as an aid to position classification in evaluating position grades. This application, however, because complicated when position are designed to handle multiple programs has not been recommended. Grade determinations may also be affected by the size and complexity of the other programs and the degree of complexity involved in handling multiple programs. Considerable interest and concern was expressed in all the district meetings concerning "multi-task" positions, because most positions devoted to recreation are also involved with wilderness and other programs.



In summary, the workload analysis would give managers an objective beginning point in evaluating whether a position should exist, what type of position to use, whether a staff position should be shared, etc.

#### IV. Recreation Program Issues and Ideas Section

This section displays issues which were raised at the various meetings around the state. Each is briefly described with a synopsis of the discussion(s) followed by any conclusions which may have been drawn. This section is provided principally for its information value.

##### A. Program Issues

1. Field Work. There is a widespread perception that the field compliance and field followup portions of a recreation job are not considered important enough to fund together with the office portion. This treatment would not be consistent with the way field inspections are treated in other programs, such as range, oil and gas, lands, etc. The rationale for similar treatment is as follows:

- a. If a permit is required under 43 Code of Federal Regulations (CFR) 8372 (whether commercial, competitive or in an identified special management area), sufficient field presence must be evident to ensure that a permit is obtained.
- b. Where fees are required, a field presence ensures that fees are paid in the appropriate amounts (See also the Grazing IG Report).
- c. Reservation systems, established to solve space, environmental or public-identified problems, must be monitored if they are to function.
- d. Field presence prevents degradation through lack of maintenance, abuse or vandalism of recreation facilities and resources. This is more important at sites BLM has made a public commitment to protect or maintain.
- e. Field work is necessary to monitor the condition of intensively used areas and collect sufficient use information for management.

There are also other field tasks which are useful, such as collecting trash at dispersed use areas, monitoring ORV use or making general field checks. These would be secondary to the needs listed above. BLM's field presence for other subactivities could also help in these tasks. BLM's recreation field presence provides an excellent opportunity for positive public visibility.

Finding: Field portions and office portions of a task should be funded together. Field work should receive greater emphasis where BLM is responding to public demands by providing facilities or managing permits.

In summary, the workshop analysis would give managers an objective beginning point in evaluating whether a position should exist, what type of position to use, whether a staff position should be created, etc.

#### IV. Reservation Program Issues and Issues Section

This section displays issues which were raised at the various meetings around the state. Each is briefly described with a synopsis of the discussion. Followed by any conclusions which may have been drawn. This section is provided separately for the information value.

##### A. Program Issues

1. Field Work. There is a widespread perception that the field component and field follow-up portion of a reservation job are not considered important enough to fund together with the office portion. This perception would not be consistent with the way field inspectors are treated in other programs, such as range, soil and pest, lands, etc. The rationale for staff treatment is as follows:

a. It is noted in reports under 42 Code of Federal Regulations (25) 2112 (b) that competitive, competitive or in an identified special management area, sufficient field evidence must be evident to ensure that a permit is obtained.

b. More fees are required, a field program ensures that fees are paid in the appropriate amounts (see also the Budget in Report).

c. Reservation systems, established to solve special environmental or public-identified problems, must be monitored if they are to function.

d. Field evidence prevents degradation through lack of maintenance, abuse or vandalism of reservation facilities and resources. This is more important at sites that have a public component to protect or maintain.

e. Field work is necessary to monitor the condition of intensively used areas and collect sufficient use information for assessment.

There are also other field tasks which are useful, such as collecting trash or dispersed use items, monitoring off use or making permits/field checks. These would be secondary to the needs listed above. But a field program for other inspection tasks also has its uses. But a reservation field program provides an excellent opportunity for positive public visibility.

Findings: Field portions and office portions of a task should be funded together. Field work should receive greater emphasis when the following conditions are met by providing facilities or managing practices:



2. Last To Go. With diminishing budgets the following rule of thumb should be applied:

- Last to go --- a. telephone, walk-in business, correspondence  
 b. permitting  
 c. developed facilities  
 d. other

It is recognized that there may be exceptions to the rule. There is also not universal agreement whether developed facilities or permitting should go first.

Finding: The general rule is good but it is best to review case-by-case.

3. Base Level Program. The proposal was to give each district 1 WM per resource area to allocate as needed to cover the public response workload. Utah recreation planners are divided on this issue. Some feel the concept is valid and the public response workload is fairly evenly distributed in this fashion. Others feel the public response workload is more closely distributed in proportion to the size of the recreation program and that such a distribution would divert too large a portion of the recreation budget.

Finding: No clear relationship was established between public response workload and the number of resource areas or work months. The 1 WM base program concept should not be used as a budgeting tool.

4. Adjust Funding Based on Workload. There is general agreement that we need to phase into a more efficient distribution of funding. There are perceptions that a) workload and funding are not always closely related, particularly where funding seems to have occurred out of priority order and b) budgets do not cover resource area operational priorities first. Workload analysis should help this. However, concern was also expressed that recreation planners should have the opportunity to brief managers on the more subjective concerns not reflected in the workload analysis.

Finding: Utah should make an effort to increase efficiency in the way it uses its recreation budget. Improved communication between the state office and the districts concerning funding priorities was suggested as a partial solution.

5. Return Fees as Funding to the RA. There is statewide support for this. Utah has already taken steps in this direction through requesting it as a Congressional agenda item.

6. Increase Internal Understanding of the Program. The perception exists that some BLM personnel do not always fully appreciate or have a clear understanding of the recreation program. The concerns are that a) the importance the public attaches to recreation use of public lands and the effect recreation management has on BLM's image are not fully recognized and b) there is not general recognition that BLM can, more cost effectively, do as good (or better) a job of recreation management than other agencies.

3. Last to go. With declining budgets the following rule of thumb should be applied:

- a. telephone, walk-in business, correspondence
- b. permitting
- c. developed facilities
- d. other

It is recognized that there may be exceptions to the rule. There is also not universal agreement whether developed facilities or permitting should go first.

Findings: The general rule is good but it is best to review case-by-case.

3. Basic Level Funding. The proposal was to give each district 1 M per resource area to allocate as needed to cover the public response workload. Urban recreation planners are divided on this issue. Some feel the concept is valid and the public response workload is fairly evenly distributed in this fashion. Others feel the public response workload is more closely distributed in proportion to the size of the recreation program and that such a distribution would divert too large a portion of the recreation budget.

Findings: No clear relationship was established between public response workload and the number of resource areas or work months. The 1 M base program concept should not be used as a budgeting tool.

4. Adjusted Funding Based on Workload. There is general agreement that we need to phase into a more efficient distribution of funding. There are perceptions that a) workload and funding are not always closely related, particularly where funding seems to have occurred out of priority order and b) budgets do not cover various non-recreational priorities first. Workload analysis should help this. However, concern was also expressed that recreation planners should have the opportunity to bring managers on the more subjective concerns not reflected in the workload analysis.

Findings: Urban should make an effort to increase efficiency in the way it uses the recreation budget. Improved communication between the state office and the districts concerning funding priorities was suggested as a partial solution.

5. Recreation Fund as Funding to the BA. There is statewide support for this. Urban has already taken steps in this direction through requesting it as a Congressional funds item.

6. Increase Internal Understanding of the Program. The recreation sector that some BA programs do not always fully understand or have a clear understanding of the recreation program. The concerns are that a) the importance the public attaches to recreation may be unclear and b) the effect recreation management has on BA's image may not fully recognized and b) there is not general recognition that BA can, more cost effectively, do as good (or better) a job of recreation management than other agencies.



Finding (Internal Understanding): This report should provide a more useful information base to help in explaining the program. Recreation planners also need to work to improve the credibility and visibility of the program through promoting accomplishments, producing written issue papers or staff reports and writing articles for internal publications.

7. Position Structure. There is understanding (and some support) that Utah BLM needs to move positions and use a greater variety of staff position types and structures in order to respond to budget reductions. The recognized objective is to maintain, or reestablish, recreation program capability.

Options discussed include reducing the number of PFT positions dedicated to the program, utilizing WAE or PPT positions, reducing the percentage of time a PFT position devotes to the program, using more multi-hat positions (most positions appear to be multi-hat to some extent now), combining collocated staff positions into a single staff and restructuring positions, using more recreation technician positions, and utilizing primarily seasonals for small programs. Seasonal positions were recognized as being very cost efficient and increasing flexibility within the budget. Vernal District provides an example of position restructuring by their recent changes in the way their recreation workload is distributed among positions.

Concern was expressed that a) position grade and structure should better reflect workload and program complexity, b) some provision must be made for recreation expertise to be available to managers year-round and c) that some positions may get spread too thin.

Finding: BLM in Utah could improve budget efficiency over time by reevaluating position location and structure within the program. In districts or resource areas with smaller programs this may include centralization or position sharing.

8. Sharing Personnel. More temporary personnel sharing could be beneficial and useful as a management tool. It could occur both between districts and between resource areas. Reasons cited include a) allowing Utah to place people where the workload is over the short term until long term position shifts can be made and b) providing more flexibility to handle spot or seasonal workloads. Advantages identified are listed below.

- a. Accomplishing some tasks better without additional positions.
- b. Providing on-the-job training and broader program exposure.
- c. Could benefit all levels (RA-RA; RA-DO; DO-DO; SO-RA; SO-DO).
- d. Cross-program skills and statewide cooperation could be improved.

Care should be taken to use this tool in cases where employee attitude and output will be positive. Details should not occur during the lender's busy season and should be task specific. Per diem and travel costs should be weighed against potential benefits.

Finding: We could enhance personnel skills, better handle seasonal or short term workloads and reduce interdistrict competitiveness by doing more personnel sharing for specific, short term recreation jobs.







9. Team Effectiveness. Utah recreation planners felt their effectiveness, individually and as a group, could be enhanced through better communication. Statewide meetings were most often mentioned. As an example, several individuals were surprised that I had been in the program in Utah for 7 years and that they had never met me or seen any work I had done. The problem was generally expressed as a need to share a) ideas for improving efficiency, b) management techniques that work, c) permitting and site information, d) data collection methods, and e) planning and EA examples. Also cited was a need to improve morale and teamwork.

Finding: Communication and coordination within the program needs to improve.

10. District and State Office Support. When asked what type of support and capability they needed more of, all of the resource areas identified operational items. The general feeling is that there is enough policy and quality control. In addition, most felt that quality control does not need to get above the district office.

The one exception to this rule was a nearly universal feeling that more quality control needs to be exercised to promote consistency in statewide data collection, particularly concerning visitor use and facility values. A concern expressed about policy guidance and information requests is that they should be kept simple and clear. A list of areas in which more support was requested follows.

- a. Handling the public inquiry workload
- b. Dispensing public information
- c. Volunteer recruitment
- d. Reducing or combining paperwork and reports
- e. Reducing the number of information requests
- f. Reducing the time required to respond to information requests
- g. Doing more multi-resource area programmatic EAs
- h. Law Enforcement support
- i. Setting more reasonable deadlines

The list above does not imply that support in these areas is always lacking, nor that it is lacking at all locations. It does suggest that duties and roles might be checked and indicates areas where effort could be concentrated. The most disliked report was the Recreation Management Information System Report prepared for the Washington Office. The complaints were:

- a. Much of the information requested has very low value or relevance for recreation management in the field.
- b. The implied relationships between activity plans and funding are not, in practice, true. Most plans set up a management framework which cannot then be dispensed with in a checklist fashion and budgets are not trackable by activity plans (except possibly at the simplest sites).
- c. Many of the numbers are not consistently developed statewide, much less Bureauwide. It is viewed as a numbers game.

9. Team Effectiveness. With reservation elements felt their effectiveness, individually and as a group, could be enhanced through better communication. Successful meetings were most often mentioned. As an example, several individuals were surprised that I had been in the program in 1974 for 7 years and that they had never met me or even my wife I had come. The problem was generally expected as a need to share a) ideas for improving efficiency, b) management techniques that work, c) identifying and using information, d) data collection methods, and e) planning and EM strategies. Also cited was a need to improve results and teamwork.

Findings: Communication and coordination within the program needs to improve.

10. District and State Office Support. When asked what type of support and capability they needed from all of the resources they identified operational items. The general feeling was that there is enough policy and quality control. In addition, most felt that quality control does not need to get above the district office.

The one exception to this rule was a minority who were/feeling that more quality control needs to be exercised to ensure consistency in statewide data collection, particularly concerning visitor use and facility values. A concern expressed about policy guidance and information resources is that they should be kept simple and clear. A list of areas in which more support was requested follows.

- a. Handling the public inquiry workload
- b. Disseminating public information
- c. Visitor recruitment
- d. Reducing or eliminating paperwork and reports
- e. Reducing the number of information requests
- f. Reducing the time required to respond to information requests
- g. Doing more self-reliance and programmatic EAs
- h. Law enforcement support
- i. Staffing more recreational facilities

The list above does not imply that support in these areas is always lacking. Nor that it is lacking at all locations. It does suggest that better and more rapid in checked and indicated areas where efforts could be concentrated. The most detailed report was the Recreation Management Information System Report prepared for the Washington Division. The comments were:

1. Much of the information requested has very low value or relevance for recreation management in the field.

2. The needed relationships between activity plans and funding are not in practice. Thus, good plans and a management framework which cannot then be compared with in a checklist fashion and budgets are not practicable by activity plans located primarily at the state level.

3. Many of the methods are not consistently developed statewide, such as last but not least, it is viewed as a random game.



d. We should concentrate on the numbers that are important and just make estimates for the others. (In fact, many of the forms have entry blanks which were left incomplete.)

e. RMIS needs to be simplified.

Some of the dissatisfaction with this report might be alleviated if information were disseminated concerning the purpose and use for some of the data. Because the system is currently being reevaluated, an effort could be made to simplify the system as much as possible while still meeting the basic needs of all levels in the Bureau. Where estimates are needed, it should be emphasized to recreation planners that the best estimates are made at the field level and if they don't make them, someone else probably will.

Finding: There is a need to actively seek ways to improve efficiency in internal paperwork flow, quality control duties and issuing policy guidance in order to devote more capability to operational work.

## B. Recommendations

The following recommendations were made by recreation planners around the state. Not all of them are universally supported or endorsed but there are some good ideas. The recommendations which I developed without any group input or feedback are indicated with an "\*".

### 1. Workload Analysis Related Recommendations

a. Set a goal to allocate funds, within 2 to 3 years, across the state based on workload. Let positions shift through attrition and reassignment.

b. \*Facility values should be reexamined for all facilities in Utah. A recommended approach for this task is shown in Appendix E.

c. \*Visitor use data for all facility and permit areas should be brought up to the standards identified at the statewide meeting (Appendix A) before resources are devoted to improving visitor use data at any other location.

d. \*The number of Recreation Management Areas (RMAs) identified should be reduced so that only those areas receiving intensive management are identified and tracked as Special Recreation Management Areas (SRMAs).

Note to the Districts: All districts may wish to consider combining RMAs. Special Recreation Management Areas are best used to delineate only those areas where there is objective evidence of intensive management. Extensive Recreation Management Areas would then encompass all areas within a resource area where intensive recreation management is not occurring. My recommendations, based on the data found in Appendix C, appear on the following page.

d. We should concentrate on the number of the important and last data estimates for the system. The fact, many of the first data entry points which were left incomplete.

e. RMIS needs to be simplified.

Some of the dissatisfaction with this report might be alleviated if information were disseminated concerning the purpose and use for some of the data. Because the system is currently being reviewed, an effort could be made to simplify the system as much as possible while still meeting the basic needs of all levels in the Bureau. Where estimates are needed, it should be emphasized to recreation planners that the last estimates are made at the field level and if they don't make them, someone else probably will.

Findings: There is a need to actively seek ways to improve efficiency in internal operations, flow, quality control, and testing policy guidance in order to ensure more capability in operational work.

## 2. Recommendations

The following recommendations were made by recreation planners around the state and all of them are uniformly supported or endorsed but there are some good ideas. The recommendations which I developed without any group input or feedback are indicated with an "A".

### 1. National Policy Related Recommendations

a. Set a goal for financial health within 3 to 5 years, across the state based on workable. Let recreation enter through attrition and investment.

b. Activity values should be recommended for all facilities in state. A recommended system for this task is shown in Appendix E.

c. Visitor use data for all facility and benefit areas should be brought up to the standards identified at the statewide meeting (Appendix A) before resources are devoted to improving visitor use data at any other location.

d. The manner of Recreation Management Areas (RMA) identification should be changed so that only those areas receiving intensive management are identified and treated as Special Recreation Management Areas (SRMA).

Note to the Director: All districts may wish to consider combining RMA. Special Recreation Management Areas were used to identify only those areas where there is distinctive evidence of intensive management. Extensive Recreation Management Areas would then encompass all areas within a resource area where intensive recreation management is not occurring. If recommendations based on the data found in Appendix C appear on the following page.



1. Combine Railroad Grade into Bear River Extensive
2. Combine Pony Express Trail and North Deep Creeks into Pony Express Extensive
3. Redelineate Kanab RA RMAs into two: Paria Canyon and Kanab Extensive
4. Combine Pony Express and Deep Creek Mountains into House Range Extensive
5. Combine Tabernacle Hill into Warm Springs Extensive
6. Combine Labyrinth Canyon into San Rafael Extensive
7. Combine Dark Canyon into San Juan Extensive
8. Combine Pelican Lake into Diamond Mountain Extensive

These changes would reduce the number of RMAs in the state from 38 to 28. It's not a bad idea to have some areas of significance in the Extensive Recreation Management Area. This is demonstrated by reviewing the data for Dixie Extensive or Henry Mountain Extensive. Special Recreation Management Areas should stand based on the intensity of the recreation management required, independent of wilderness values, cultural values, etc. It may also be worthwhile to review Special RMA boundaries to ensure that they include only those areas related to the intensively managed activity.

## 2. Issue Related Recommendations

- a. The compliance/field followup part of a job should be funded together with the office portion.
- b. Consider substituting seasonals for recreation area cleanup contracts in some locations in order to have some field presence.
- c. Limit seasonal hires to GS-5 or lower unless they have worked at least 3 seasons and clearly can, in support, absorb some of the recreation planner's workload.
- d. Do more sharing of personnel and equipment.
- e. Utah recreation planners need to meet more often. The meetings should be devoted to a specific product such as the statewide ORV implementation training. Develop more of a team approach among Utah recreation planners and drop the we/they syndrome.
- f. \*Institute a formal system for statewide information sharing and emphasize innovative ideas. An example might be to request a yearly laundry list of innovative ideas, management actions of interest and unusual EAs from all the districts and then share the list statewide.

## 3. Program Management Related Recommendations

- a. Increase the use of volunteers by planning recruitment earlier, setting aside funding as early as possible and developing statewide interest group lists to regularly contact for recruitment.





- b. When deadlines on response items are short, the SO should mail courtesy copies directly to the resource areas at the same time they mail to the district offices.
- c. Issue more recreation news releases in all the Utah districts. These help give BLM a "white hat" image. One district recommended that BLM should respond to negative articles (at least in some cases).
- d. Maintain careful attention to BLM road signing in recreation use areas due to its visibility and effect on public opinion.
- e. Natural History Association outlets should be established statewide.
- f. More effort should be made in distributing and promoting the statewide gifts catalog.
- g. \*Major programs should compile Question and Answer Sheets for use in orienting other employees, in the public room and in other offices. (Example in Appendix H.)
- h. \*Major facilities should have maintenance operations binders with information on the location of water and propane tanks, appliances, pipelines, valves, electrical lines, normal schedules for sewer service, normal schedules for water delivery, procedures for winterization, procedures for water system disinfection, etc.
- i. \*Major programs with large public response workloads should standardize as many letters and information sheets as possible to respond to commonly asked questions that require more than a simple answer. (Example in Appendix H.)
- j. \*Programs with a high volume of relatively simple mailings should consider using post cards. (Example in Appendix H.)
- k. \*Recreation Planners handling large or complex programs should consider preparing, every 1 to 5 years, staff report overviews discussing program operations and issues. These help managers stay informed and involved while also orienting other employees.
- k. Increase law enforcement support by assistance from outside sources (consider contracts) and from increased use of BLM rangers (share existing rangers more or establish more ranger positions?).

d. When decisions on response items are made, the SD should mail courtesy copies directly to the resource areas at the same time they mail to the district office.

e. Issue more recreation news releases in all the districts. These help give BLM a "white hat" image. One district recommended that BLM should respond to negative articles (at least in some cases).

f. Maintain careful attention to BLM field timing in recreation use areas due to its visibility and effect on public opinion.

g. Natural history Association letters should be established standards.

h. More effort should be made in distributing and promoting the standards given calling.

i. District programs should compile Question and Answer sheets for use in visiting other employees, in the public room and in other offices. (Example in Appendix B.)

j. Water facilities should have maintenance operations divided into information on the location of water and sewage lines, appliances, electrical lines, water schedules for water service, normal schedules for water delivery, procedures for waterization, procedures for water system distribution, etc.

k. Major programs with large public response workloads should standardize as many letters and information sheets as possible to respond to commonly asked questions that require more than a single answer. (Example in Appendix B.)

l. Program with a high volume of relatively simple mailings should consider using post cards. (Example in Appendix B.)

m. Recreation programs handling large or complex programs should consider preparing every 1 to 2 years, staff reports on recreation programs division and issues. These help managers stay informed and involved with also providing a good background.

n. Increase the informational support by gathering from outside sources (consultants, etc.) and from increased use of all resources (staff existing) reports more on activities more (national).



## APPENDICES





## APPENDIX A





## APPENDIX A

### THE UTAH RECREATION WORKLOAD MODEL

This appendix describes the development of the Utah model and provides the mechanism for converting raw data into workload points.

#### I. Overview of How the Workload Analysis Was Developed

In evaluating the recreation workload in Utah, the approach used was designed to allow for broad based input and group decision making by recreation planners around the state. It was also designed to encourage open discussion and avoid, as far as possible, bias toward historical views of how the recreation program should be managed in Utah. In fact, the approach taken did result in forceful discussion, some new program management concepts and a consensus agreement among the districts on how workload should be evaluated.

To achieve this result, five steps were taken during preparation of this document. They are:

1. A workload analysis development meeting was held for each district. At these meetings, each group developed a consensus proposal to evaluate workload in their district (see Appendix I). That proposal was carried forward into the statewide meeting.
2. Consensus decision making was used at all meetings.
3. I restricted my role in the district meetings as described in the agenda found in Appendix I. I made an effort to be more interested in consensus than in individual issues, resource areas or districts.
4. The State Office Recreation Planner was not included in any of the meetings to avoid creating any inhibitions (based on budgets or working relationships), or bias in favor of present statewide program leadership approaches. This also kept the focus on field level, operational workload.
5. A facilitator and recorder from outside the Utah recreation program ran the statewide meeting.

These measures are expected to also provide the following benefits:

1. To help avoid perceptions of bias,
2. To establish statewide support for the product,
3. To allay fears/skepticism through local participation,
4. To promote statewide objectivity and team orientation in viewing the recreation program.

All of the district meetings were mainly devoted to reviewing the district workload by listing tasks, developing preferred indicators for those tasks, narrowing the list of indicators to 10 or fewer, and then ranking the indicators by assigning 100 points among them. As time allowed, about 1 hour





was spent discussing recommendations to management and program related issues. An attempt was also made in each meeting to generate ideas on what could be done better or differently.

A similar format was used for the statewide meeting, although it began by using the list of indicators already developed at the district meeting around the state. Little time was available for issue discussion, but a written version of issues raised around the state was later provided to each district for comment.

Consensus was checked several times near the end of the statewide meeting. All districts present said that although the workload analysis approach agreed upon was not perfect, it was the best possible product and they would support it. Vernal District did not send a representative to the meeting, but indicated in their issues response that they thought the approach had merit. The major compromises made at the meeting were directed toward resolving concerns raised by Cedar City and Richfield Districts.

Since the statewide meeting, I have worked to obtain and evaluate data and produce this document. I have used the workload indicators and weightings assigned by the statewide meeting.

## II. Identification of Indicators

In describing the workload indicators, significant parts of the statewide discussion which portray underlying concepts are paraphrased below.

### A. Indicators Accepted

#### 1. Permitting by type of permit

Permits were identified by all the districts, except Vernal, as a workload and as a significant indicator in their individual district meetings. In Vernal permits were not considered a major workload because they do not issue them often or on a regular basis. In the other district meetings and in the statewide meeting, the three types of permits (commercial, noncommercial, and competitive) were determined to represent distinctly different workloads. For this reason, each type was identified as a separate indicator. The number of permittees is used for the commercial category, rather than permits issued, to allow for 5 year permits as provided for in BLM policy.

Purpose: The commercial, noncommercial (see also B.2 below), and competitive permit indicators represent 1) permit processing (activity planning, EAs, stipulation development, etc.), 2) specialized use supervision of permitted activities (rationing, regulating or scheduling recreation use to meet management objectives), and 3) field inspections for compliance with permit stipulations.

Data Source: Yearly Recreation Management Information System (RMIS) submissions





## 2. Facility Sites and Replacement Value

All offices indicated that the number, value, size, and complexity of the various physical facilities for recreation should be considered. The workload is the site maintenance needed to support use and protect or enhance the facility. The relationship established is that the work to be done and the importance of accomplishing it increases with the value, size and complexity of the developed or semi-developed recreation site.

The point was also made that having a number of sites at different locations increases the management workload. In order to emphasize fully developed sites over semi-developed sites, a weighting factor (2 to 1) was introduced when counting sites.

Purpose: The replacement value of developed and semi-developed sites (using recreation inventory system definitions) represents both the amount of site maintenance work to be done and the dollar value of public investment in facilities (value at risk). The number of developed and semi-developed sites represents how many sites at different locations must be managed. The 2-to-1 weighting used in counting sites provides additional emphasis for site complexity beyond that provided by facility investment.

Data Source: Number of Sites by Type....Yearly RMIS Submission  
Replacement Value.....FY84 Prepackage Submission (temporary)  
.....Redeveloped Values (when available)

## 3. Visitation

All meetings included both visits (number of people) and visitor hours (length of stay) as significant indicators of the degree and regularity with which BLM interacts with public. The distinction was made and agreed upon at the statewide meeting that these categories should only treat "managed" use under permits or at developed sites. This limitation was agreed upon because:

- a. Utah's highest validity user data is collected in those areas receiving this type of management,
- b. Much of the use data for other recreation is of very low validity or does not reflect BLM involvement as a manager of recreation use,
- c. Forseeable budgets will limit BLM's ability to become more involved in managing more dispersed types of recreation,
- d. Some dispersed recreation uses do not cause any significant adverse impacts to resources on public lands, with or without management.
- e. Questions were raised asking 1) If the use is out there and it isn't under permit or at a site, what is BLM doing?, 2) How major a workload is it?, and 3) Is it any different than what is done, or should be done, statewide for dispersed use?





These limitations on visitation data might be reevaluated if budgets, budget efficiency or position efficiency increase to a degree that the permitting and site management tasks are adequately covered.

Purpose: The visits indicator represents the number of people BLM affects through their management of permits or sites while visitor hours represents how much time those people spend using BLM managed lands. Together they represent the public contact workload and a measure of the degree to which visitor services should be provided in permit areas and at facility sites.

Data Source: Yearly RMIS Submissions

#### 4. Fees Collected

Fees were considered important because 1) they create the job of collecting, tracking and processing payments and 2) they affect the users' expectations concerning BLM management. When the public is paying a fee, they expect management presence and visitor services. This expectation is apparent as dissatisfaction when BLM's performance does not match expressed or perceived management commitments.

Purpose: The fee indicator represents both the fee processing job and public sensitivity about receiving services they feel they are paying for.

Data Source: Yearly RMIS Submission

#### B. Indicators Considered But Rejected

These indicators are presented in the order of importance identified by the statewide meeting (numbers 1 and 2) or by a composite ranking drawn from the district meetings.

##### 1. Camp Units

There was considerable concern, voiced primarily by Richfield District, that site complexity and size was not adequately represented by replacement value. Citing Little Sahara and the Henry Mountains as examples, counting camp units was suggested to compensate for this. The arguments against making this a significant indicator included a) it was too specific (singling out a specific type of facility over others), b) site size and complexity were adequately represented by facility investment, and c) Little Sahara would be expected to rank high anyway based on replacement value, number of sites, visitor use, and fees collected.

Outcome: As a compromise, Richfield agreed to drop camp units as an indicator if the other districts would agree 1) to weight developed sites heavier when counting sites, 2) to assign the Henry Mountains the highest point total when counting, sites and 3) that Little Sahara was the largest, most complex developed site in the state. Although concern was expressed by Moab about the size and complexity of Canyon Rims, all districts agreed to the compromises.





## 2. Visitor Register Permits

At the statewide meeting this was proposed as a new indicator. It had not been previously identified at any district meeting. It was proposed by Cedar City and evaluated in response to concerns expressed about counting registrations at Escalante. The group recognized that they were quite different from other noncommercial permits (mainly river). Moab cited the similarity of the Escalante registrations to registrations used at Grand Gulch, indicating that it was questionable that they met Code of Federal Regulations (CFR) requirements to be a BLM permit.

Differences between the registrations and permits discussed included the Federal Register notice required to identify the area as a "special area" requiring permits, fee requirements, developed stipulations and compliance, and the degree of public interaction and rationing/reservation systems required for permit management.

Outcome: All districts agreed to count these "permits" at Escalante and Grand Gulch as noncommercial permits, but on a reduced basis. Ratios discussed ranged from 4 register permits equalling 1 noncommercial permit to 10 to 1. The group agreed that Cedar City and Moab should consult the resource areas involved and set the final ratio. The ratio is 4 to 1. (Developed site permits are not counted as noncommercial permits. They are reported seperately under RMIS.)

## 3. Undeveloped Sites

This indicator was developed to represent work done for sites where there are no developed facilities. These sites are found in all districts and generally receive public use, but BLM's management presence is usually limited to making general field checks or cleaning the site when passing by. Some of these areas do have significant values, such as good camping opportunities or high quality scenery, but these sites have not been consistently identified or managed on a statewide basis.

Some of those sites receiving management are also identifiable with permitted uses or nearby facility sites. These sites could be assumed to be implicit in existing indicators, at least to some degree.

In summary, the workload related to these sites is not consistent, nor is available data on the sites. In some districts these sites have received minimal attention, because they are too low a priority.

Outcome: The indicator was dropped at the statewide meeting.





#### 4. Special Designations

This indicator was intended to represent the extra attention needed to manage resources of high sensitivity or concern. While the intent was supported at the statewide meeting, there were flaws identified. The principal flaw was the lack of any consistent relationship between the designation (ACEC, NHL, NNL, Wilderness Area, etc.) and the amount or type of management attention (work) the site required. In addition, most of these special designations are managed under separate subactivities (principally Cultural Resources (4331) and Wilderness (4332)).

Outcome: The indicator was dropped at the statewide meeting.

#### 5. Activity Plans

This indicator was intended to represent the degree of management commitment to a specific management approach in a recreation management area. The public involvement in developing the plan was generally cited.

A problem identified with this indicator was, again, the lack of any direct relationship between the fact that a plan has been completed and the degree of management involvement required by the plan. It was also noted that activity planning in some areas has been preempted by operational work and that activity plans have not necessarily been accomplished in any recognizable priority order (at least on a statewide basis). For these reasons, the indicator was determined to be a poor measure of workload or the relative importance of site management.

Outcome: The indicator was dropped at the statewide meeting.

#### 6. Safety

The safety indicator was intended to represent the need for management presence to protect public safety in BLM recreation use areas. The only objective measure which could be developed was the number of deaths and/or incidents.

The problem identified with this indicator was the uncertainty whether more BLM presence or expenditure would prevent deaths or incidents. The answer was in some cases yes but in many probably not. A second problem identified was the possibility that the indicator could be affected by the quality of the safety job done at any site. Thus the absence of accidents for a period of years at a site (a job well done) might be interpreted as the absence of a safety concern, regardless of the risk inherent in the activity. The consensus was that this was a job everyone was involved in but there was no reasonable way of identifying differences consistently across recreation management areas.

Outcome: The indicator was dropped at the statewide meeting.

#### 4. Specific Designations

This indicator was intended to represent the degree of attention needed to manage resources of high sensitivity or concern. While the intent was supported at the planning meeting, there were some reservations. The critical time was the lack of any consistent relationship between the designation (A, B, C, etc.) and the amount or type of management attention needed. In addition, most of these specific designations are managed under separate systems (e.g., National Wetlands (4231) and National Forest (4232)).

Outcome: The indicator was dropped at the planning meeting.

#### 5. Activity Plans

This indicator was intended to represent the degree of management commitment to a specific management approach in a restoration management plan. The public involvement in developing the plan was generally good.

A problem identified with this indicator was that the lack of any direct relationship between the fact that a plan was developed and the degree of management involvement required by the plan. It was also noted that activity plans in some areas have been developed by operational staff and that activity plans have not necessarily been incorporated in the management plan. For these reasons, the indicator was intended to be a poor measure of involvement or the relative importance of the management plan.

Outcome: The indicator was dropped at the planning meeting.

#### 6. Safety

The safety indicator was intended to represent the need for management resources to ensure public safety in all restoration activities. The only objective measure which could be developed was the number of deaths and/or injuries.

The problem identified with this indicator was the uncertainty whether more than one or several would provide deaths or injuries. The answer was in some cases yes and in some cases no. A second problem identified was the possibility that the indicator could be affected by the quality of the safety data used. For the purpose of this indicator, a period of 1 year at a site is used. It is not clear what is interpreted as the amount of a safety concern, regardless of the time interval in the activity. The consensus was that not a lot of attention was involved in the restoration of a site and that the indicator was not a good measure of safety or the relative importance of the management plan.

Outcome: The indicator was dropped at the planning meeting.



## 7. Service Contracts

This was intended to directly measure the number of contracts or contract dollars required for developed site maintenance. This would measure the "how" of handling the job and would bias against other management options at a site. Contracts were also found to be very inconsistent in difficulty to write and administer.

Outcome: The indicator was dropped at the statewide meeting.

## 8. Undeveloped Facilities

This indicator was intended to represent BLM's investment in equipment to manage use at a site. The indicator addresses how a particular management task is accomplished and no direct relationship to the amount or importance of the workload could be established.

Outcome: The indicator was dropped at the statewide meeting.

## 9. Recreational Trails

This indicator was intended to represent trail use and maintenance through the number of miles of trail. The correlation to BLM's workload in recreation is poor although it may be an appropriate indicator for maintenance of roads and trails (4713).

Outcome: The indicator was dropped at the statewide meeting.

## III. Relationships Among the Indicators Selected

In order to draw a bottom line comparison, significant indicator points must be used to sum dissimilar workload categories. A maximum number of significant indicator points was assigned to each of the 8 workload categories by the statewide meeting. The relationships among the workload categories can be portrayed as the average number of measured units required to increase the workload ranking by one point. To increase the workload ranking by one point would require one of the following:

### Permit Management

- 1 Competitive Permit
- 5 Commercial Permits
- 150 Noncommercial Permits

(continued on the next page)

7. Service Contracts

This was intended to directly measure the number of contracts or contracts dollars needed for developed site maintenance. This would measure the "how" of handling the job and would also be against other management options at a site. Contracts were also found to be very inconsistent in difficulty to write and administer.

Outcome: The indicator was dropped at the statewide meeting.

8. Undeveloped Facilities

This indicator was intended to represent BLM's investment in equipment to manage use of a site. The indicator addresses how a particular management task is accomplished and no direct relationship to the amount or importance of the work could be established.

Outcome: The indicator was dropped at the statewide meeting.

9. Recreational Trails

This indicator was intended to represent trail use and maintenance through the number of miles of trail. The correlation to BLM's workload in recreation is not obvious. It may be an appropriate indicator for maintenance of roads and trails.

Outcome: The indicator was dropped at the statewide meeting.

10. Relationship Among the Indicator Selected

In order to draw a better line connection, significant indicator points must be used to run statistical workload categories. A maximum number of significant indicator points was assigned to each of the 8 workload categories by the statewide meeting. The relationship among the workload categories can be portrayed as the average number of workload units needed to increase the workload rating by one point. To increase the workload rating by one point would require one of the following:

Percent Relationship

- 1 Logistical Points
- 2 Contract Points
- 150 Maintenance Points

(Continue on the next page)



### Site Management

1 Developed Site (With all facilities required by LWCF Act)  
 2 Semi-developed Sites  
 \$35,000 In Facility Replacement Value

### Use Supervision (in Permit Areas and at Facility Sites)

12,000 Visits  
 120,000 Visitor Days

### Fee Collection

\$12,000 In Fees Collected

The relationship established among the permit types would suggest roughly equivalent workloads for 1 competitive permit, 5 commercial permits and 150 noncommercial permits. It is usually true that the most time consuming individual permits to process are competitive, while the least time consuming are noncommercial. However, it is questionable that the relationship is 1 to 150. Possible distortions in the relationships established among permit types may be explainable as the result of uneven levels of experience/familiarity with noncommercial permits. Once the workload system has been in place for a period of time, it may be advisable to reexamine the relationships.

In general, the 1 to 2 relationship between fully developed and semi-developed sites appears reasonable. Some question may arise from the extreme diversity among semi-developed sites within the state. These sites range from ranger stations and a visitor center to roadside interpretive sites and overlooks. For listing of facility sites in Utah see Appendix E. This diversity in sites is, however, to a large degree compensated for by measuring facility value. Larger, more complex sites would also have higher replacement values.

Visits show the number of people. The larger figure for visitor hours allows for emphasis on the visitor that spends more time using public lands and thus requires more services or affects a larger area.

Fees do not have any direct relationship with any other significant indicator category.

### IV. Data Improvement Needs

No data improvement needs were identified with regard to the number of permits, regardless of type of permit.

In identifying semi-developed facility sites, standards need to be tightened so that all districts are reporting like sites. Some districts and resource areas appear to be reporting sites with no other BLM facilities beyond interpretive signing; others are not. This inconsistency does not apply to a large number of sites.

Site Management

1 Developed Site (with all facilities required by LMR Act)  
2 Semi-developed Sites  
\$25,000 in Facility Replacement Value

Use Supervision (in Private Areas and at Facility Sites)

15,000 Visits  
150,000 Visitor Days

Fee Collection

\$15,000 in Fees Collected

The relationship established among the benefit types would suggest roughly equivalent weights for 1 competitive benefit, 2 commercial benefits and 10 noncommercial benefits. It is usually true that the more time consuming individual benefits to private and competitive, while the least time consuming are noncommercial. However, it is questionable that the relationship is 1 to 10. Possible variations in the relationships established among benefit types may be explained as the result of uneven levels of environmental quality with noncommercial benefits. Once the workload system has been in place for a period of time, it may be advisable to reexamine the relationships.

In general, the 1 to 2 relationship between fully developed and semi-developed sites seems reasonable. Some question may arise from the extreme diversity among semi-developed sites within the state. These sites range from regional stations and a visitor center to remote interpretive sites and overlooks. For listing of facilities within the state see Appendix I. This diversity in sites is, however, a large degree compensated for by measuring facility value. Larger, more complex sites would also have higher replacement values.

Visits show the number of people. The larger figure for visitor hours allows for emphasis on the visitor that spends more time using public lands and thus receives more services or enjoys a larger area.

Fees do not have any direct relationship with any other significant indicator category.

IV. Data Implementation Needs

As state improvement needs were identified with regard to the number of benefits, regardless of type of benefit.

In identifying semi-developed facility sites, standards need to be tightened so that all districts are measuring the sites. Some districts and resources areas appear to be reporting sites with no other BLM facilities beyond interpretive facilities. Efforts are not. This inconsistency does not apply to a large number of sites.



A consistent method for appraising facility replacement value statewide needs to be developed and applied. The appraisal effort is probably only needed once every 10 years, if that. Appraisal methods should probably be developed and applied together with realty and engineering input. An economic model developed by Bob Dalla and Bob Milton could also be employed to convert construction costs (where reliable file data exists) to current year dollars (replacement value). Current data ranges from carefully calculated values, using actual construction costs, to guesses. We should have more reliable information concerning BLM's investment in physical facilities.

The validity of use data is also variable. At the statewide meeting, the decision was made to focus on the use numbers for permit and facility areas. The next step should be to raise the validity of the data collected for those areas. The standard developed at the statewide meeting is to use data from one of the following sources:

1. Actual Counts
2. Direct Data from Permits
3. Envelope Counts at Facility Sites
4. Registration Lists
5. Data Derived from Vehicle Counters
6. Data Calibrated through Formal Sampling Studies

Examples of sampling study formats, used for Price Canyon Recreation Area and for the Green River Daily, are found in Appendix H. (These were both developed and implemented with the help of college students, volunteers and, to a lesser extent seasonal employees.)

No data improvement needs were identified in counting fees collected (dollars).

Data limitations might be reevaluated if budgets, budget efficiency or position efficiency increase to a degree that the permitting and site management tasks are adequately covered. If this occurs, we need to carefully select the new area of management emphasis, take steps to collect sufficient data to allow for management and develop a management strategy. If we are going to manage it, we need to know what it is and what we plan to accomplish.

#### V. Conversion of Data to Workload Indicator Points

Using the Significant Indicator system, recreation data can be converted into points and the points can be summed to provide the basis for a relative ranking of the district recreation programs in Utah. Table A1 on the next page shows how the data in Table 1 on page 10 was converted into workload points using the model attached to this appendix.

A constant method for appraising facility replacement value standards needs to be developed and applied. The appraisal effort is probably only needed once every 10 years. It is that appraisal which should probably be developed and applied together with yearly and engineering input. An economic model developed by Bob Datta and Bob Wilson could also be employed to convert construction costs (where reliable data exists) to current year dollars (replacement values). Current data ranges from carefully calculated values, using actual construction costs, to guesses. We should have more reliable information concerning SRI's investment in physical facilities.

The validity of use data is also variable. At the standards meeting, the decision was made to focus on the use numbers for transit and facility areas. The next step would be to raise the validity of the data collected for those areas. The standards developed at the standards meeting is to use data from one of the following sources:

1. Actual Counts
2. Direct Data from Facilities
3. Indirect Counts of Facility Sizes
4. Registration Lists
5. Data Derived from Vehicle Counters
6. Data Collected through Special Counting Studies

Examples of sampling study forecasts, used for Price Canyon Recreation Area and for the Green River Valley, are found in Appendix A. These were both developed and implemented with the help of college students, volunteers and to a larger extent national agencies.

No data improvement needs were identified in counting fees collected (dollars).

Data collection might be reevaluated if budgets, budget efficiency or position efficiency becomes to a degree that the counting and site management tasks are obviously covered. If this occurs, we need to carefully select the new area of management emphasis, take steps to collect sufficient data to allow for management and develop a management strategy. If we are going to manage it, we need to know what it is and what we plan to accomplish.

#### Conversion of Data to Standard Indicator Values

Using the Standard Indicator system, recreation data can be converted into points and the points can be summed to provide the basis for a relative ranking of the Standard Indicator program in Utah. Table A1 in the next page shows how the data in Table 1 are being converted into workable points using the method discussed in this appendix.



TABLE A1: Workload Point Assignments by Indicator and District

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Total
Commercial Permits	1	2	0	15	0	18
Noncommercial Permits	1	2	1	14	0	18
Facility Value (\$000)	1	2	10	13	1	27
Visitor Hours	1	5	3	12	2	23
Facility Sites	2	5	10.5	12	2.5	32
Visits	1	7	9	8	2	26
Fees Collected	1	2	4	9	0	16
Competitive Permits	7	3	4	6	0	20
Sum	15	28	41.5	89	7.5	180

The point sums taken from Table A1 can then each be divided into the point total for Utah (180). The result is the percentage of the statewide workload for each district. The recreation program workload is spread among the 5 districts as follows:

TABLE A2: Percentage of the Overall Recreation Workload in Each District

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Total
Percentage	8	16	23	49	4	100

As an indication of the affect workload category weightings had on the district percentages assigned, a slightly different workload distribution would have been derived if all the workload categories were given equal weight (12.5 points). This would have meant that the district with the largest number of commercial permits, noncommercial permits, etc. would have been assigned 12.5 points while districts with fewer would receive a portion of the 12.5 points. These figures are provided only to demonstrate that the weighting factors assigned at the statewide meeting had only a very small affect on the outcome.

TABLE A3: Percentages Using A Level Ranking of Indicators--Compare With Table 9 To See the Effect of Indicator Weightings Assigned at the Statewide Meeting

	Salt Lake	Cedar City	Richfield	Moab	Vernal	Total
Workload Points	18	30	44	88	8	188
Percentage	10	16	23	47	4	100

Thus the weightings assigned by recreation planners at the statewide meeting to the 8 indicators had a small affect on how the overall workload distribution is portrayed, when compared to a level ranking. Any adjustments in the weightings would also affect the number of measured units required to raise a ranking by 1 point. For example, the level ranking above would suggest that the workload for 250 noncommercial permits, rather than 150 as under the preferred approach, would equal that for 1 competitive permit.





# RECREATION ANALYSIS FOR UTAH

How many Districts will be analyzed (up to 5)?  
5

## WORKLOAD

## POINTS

### 1. COMMERCIAL PERMITEES

Over 75	16
71 to 75	15
66 to 70	14
61 to 65	13
56 to 60	12
51 to 55	11
46 to 50	10
41 to 45	9
36 to 40	8
31 to 35	7
26 to 30	6
21 to 25	5
16 to 20	4
11 to 15	3
6 to 10	2
1 to 5	1
None	0

### 2. NONCOMMERCIAL PERMITS PROCESSED

Over 2310	15
2141 to 2310	14
1971 to 2140	13
1801 to 1970	12
1631 to 1800	11
1461 to 1630	10
1291 to 1460	9
1121 to 1290	8
951 to 1120	7
781 to 950	6
611 to 780	5
441 to 610	4
271 to 440	3
101 to 270	2
1 to 100	1
None	0





### 3. FACILITIES INVESTMENT

Over \$4,875,000	14
\$4,500,001 to \$4,875,000	13
\$4,125,001 to \$4,500,000	12
\$3,750,001 to \$4,125,000	11
\$3,375,001 to \$3,750,000	10
\$3,000,001 to \$3,375,001	9
\$2,625,001 to \$3,000,000	8
\$2,250,001 to \$2,625,000	7
\$1,875,001 to \$2,250,000	6
\$1,500,001 to \$1,875,000	5
\$1,125,001 to \$1,500,000	4
\$750,001 to \$1,125,000	3
\$375,001 to \$750,000	2
\$1000 to \$375,000	1
No developed or semi-developed sites	0

### 4. VISITOR HOURS--length of stay

Over 1,440,000	13
1,320,001 to 1,440,000	12
1,200,001 to 1,320,000	11
1,080,001 to 1,200,000	10
960,001 to 1,080,000	9
840,001 to 960,000	8
720,001 to 840,000	7
600,001 to 720,000	6
480,001 to 600,000	5
360,001 to 480,000	4
240,001 to 360,000	3
120,001 to 240,000	2
Fewer than 120,000	1

### 5. DEVELOPED AND SEMI-DEVELOPED SITES

Assign 1/2 point for each semi-developed site and 1 point for each developed site in the RMA. Add the points and enter the total.

NOTE: Consensus identified Little Sahara as the largest and most complex developed site in Utah. This is at least in part measured above through facility investment.

14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0

Over 24,375,000  
24,300,001 to 24,375,000  
24,125,001 to 24,300,000  
23,750,001 to 24,125,000  
23,375,001 to 23,750,000  
23,000,001 to 23,375,000  
22,625,001 to 23,000,000  
22,250,001 to 22,625,000  
21,875,001 to 22,250,000  
21,500,001 to 21,875,000  
21,125,001 to 21,500,000  
20,750,001 to 21,125,000  
20,375,001 to 20,750,000  
20,000 to 20,375,000

Not developed on semi-developed sites

4. VISITOR HOMES--length of stay

13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1

Over 1,440,000  
1,320,001 to 1,440,000  
1,200,001 to 1,320,000  
1,080,001 to 1,200,000  
960,001 to 1,080,000  
840,001 to 960,000  
720,001 to 840,000  
600,001 to 720,000  
480,001 to 600,000  
360,001 to 480,000  
240,001 to 360,000  
120,001 to 240,000  
From 0 to 120,000

5. DEVELOPERS AND SEMI-DEVELOPED SITES

Anybody who points for each semi-developed site and 1 point for each developed site. In the table, add the points and enter the total.

NOTE: Developments identified as little known as the largest and most semi-developed site in Utah. This is at least 1000 acres above the minimum facility development.



6. VISITS--Number of People

Over 120,000	11
108,001 to 120,000	10
96,001 to 108,000	9
84,001 to 96,000	8
72,001 to 84,000	7
60,001 to 72,000	6
48,001 to 60,000	5
36,001 to 48,000	4
24,000 to 36,000	3
12,000 to 24,000	2
Fewer than 12,000	1

#### 7. FEES COLLECTED

Over \$120,000	10
\$106,001 to \$120,000	9
\$92,001 to \$106,000	8
\$78,001 to \$92,000	7
\$64,001 to \$78,000	6
\$50,001 to \$64,000	5
\$36,001 to \$50,000	4
\$22,001 to \$36,000	3
\$8,001 to \$22,000	2
\$1 to \$8000	1
None	0

#### 8. COMPETITIVE PERMITS PROCESSED

9 or more permits	9
8 permits	8
6 permits	6
7 permits	7
6 permits	6
5 permits	5
4 permits	4
3 permits	3
2 permits	2
1 permit	1
No competitive permits	0





## APPENDIX B

APPENDIX B



# APPENDIX B

## RESOURCE AREA MODEL

### RECREATION ANALYSIS FOR

How many RMAs will be analyzed (up to 5)?

#### WORKLOAD

#### POINTS

#### 1. COMMERCIAL PERMITEES

Over 28	16
27 or 28	15
25 or 26	14
23 or 24	13
21 or 22	12
19 or 20	11
17 or 18	10
15 or 16	9
13 or 14	8
11 or 12	7
9 or 10	6
7 or 8	5
5 or 6	4
3 or 4	3
2 permittees	2
1 permittee	1
None	0

#### 2. NONCOMMERCIAL PERMITS PROCESSED

Over 1000	15
901 to 1000	14
801 to 900	13
701 to 800	12
601 to 700	11
501 to 600	10
401 to 500	9
301 to 400	8
201 to 300	7
101 to 200	6
1 to 100	5
1 to 120	4
1 to 180	3
1 to 240	2
1 to 300	1
None	0





### 3. FACILITIES INVESTMENT

Over \$3,000,000	14
\$2,700,001 to \$3,000,000	13
\$2,400,001 to \$2,700,000	12
\$2,100,001 to \$2,400,000	11
\$1,800,001 to \$2,100,000	10
\$1,500,001 to \$1,800,000	9
\$1,200,001 to \$1,500,000	8
\$900,001 to \$1,200,000	7
\$600,001 to \$900,000	6
\$400,001 to \$600,000	5
\$200,001 to \$400,000	4
\$100,001 to \$200,000	3
\$50,001 to \$100,000	2
\$1000 to \$50,000	1
No developed or semi-developed sites	0

### 4. VISITOR HOURS--length of stay

Over 700,000	13
600,001 to 700,000	12
500,001 to 600,000	11
400,001 to 500,000	10
300,001 to 400,000	9
250,001 to 300,000	8
200,001 to 250,000	7
150,001 to 200,000	6
100,001 to 150,000	5
50,001 to 100,000	4
25,001 to 50,000	3
10,001 to 25,000	2
Fewer than 10,000	1

### 5. DEVELOPED AND SEMI-DEVELOPED SITES

Assign 1 point for each semi-developed site and 2 points for each developed site in the RMA. Add the points and enter the total.

NOTE: Consensus identified Little Sahara as the largest and most complex developed site in Utah. This is at least in part measured above through facility investment.

### 6. VISITS--Number of People

Over 100,000	11
90,001 to 100,000	10
80,001 to 90,000	9
70,001 to 80,000	8
60,001 to 70,000	7
50,001 to 60,000	6
40,001 to 50,000	5
30,001 to 40,000	4
20,001 to 30,000	3
10,000 to 20,000	2
Fewer than 10,000	1

14  
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5  
4  
3  
2  
1  
0

0-45 85,000,000  
45-90 100,000,000  
90-135 125,000,000  
135-180 150,000,000  
180-225 175,000,000  
225-270 200,000,000  
270-315 225,000,000  
315-360 250,000,000  
360-405 275,000,000  
405-450 300,000,000  
450-495 325,000,000  
495-540 350,000,000  
540-585 375,000,000  
585-630 400,000,000  
630-675 425,000,000  
675-720 450,000,000  
720-765 475,000,000  
765-810 500,000,000  
810-855 525,000,000  
855-900 550,000,000  
900-945 575,000,000  
945-990 600,000,000  
990-1035 625,000,000  
1035-1080 650,000,000  
1080-1125 675,000,000  
1125-1170 700,000,000  
1170-1215 725,000,000  
1215-1260 750,000,000  
1260-1305 775,000,000  
1305-1350 800,000,000  
1350-1395 825,000,000  
1395-1440 850,000,000  
1440-1485 875,000,000  
1485-1530 900,000,000  
1530-1575 925,000,000  
1575-1620 950,000,000  
1620-1665 975,000,000  
1665-1710 1,000,000,000  
1710-1755 1,025,000,000  
1755-1800 1,050,000,000  
1800-1845 1,075,000,000  
1845-1890 1,100,000,000  
1890-1935 1,125,000,000  
1935-1980 1,150,000,000  
1980-2025 1,175,000,000  
2025-2070 1,200,000,000  
2070-2115 1,225,000,000  
2115-2160 1,250,000,000  
2160-2205 1,275,000,000  
2205-2250 1,300,000,000  
2250-2295 1,325,000,000  
2295-2340 1,350,000,000  
2340-2385 1,375,000,000  
2385-2430 1,400,000,000  
2430-2475 1,425,000,000  
2475-2520 1,450,000,000  
2520-2565 1,475,000,000  
2565-2610 1,500,000,000  
2610-2655 1,525,000,000  
2655-2700 1,550,000,000  
2700-2745 1,575,000,000  
2745-2790 1,600,000,000  
2790-2835 1,625,000,000  
2835-2880 1,650,000,000  
2880-2925 1,675,000,000  
2925-2970 1,700,000,000  
2970-3015 1,725,000,000  
3015-3060 1,750,000,000  
3060-3105 1,775,000,000  
3105-3150 1,800,000,000  
3150-3195 1,825,000,000  
3195-3240 1,850,000,000  
3240-3285 1,875,000,000  
3285-3330 1,900,000,000  
3330-3375 1,925,000,000  
3375-3420 1,950,000,000  
3420-3465 1,975,000,000  
3465-3510 2,000,000,000  
3510-3555 2,025,000,000  
3555-3600 2,050,000,000  
3600-3645 2,075,000,000  
3645-3690 2,100,000,000  
3690-3735 2,125,000,000  
3735-3780 2,150,000,000  
3780-3825 2,175,000,000  
3825-3870 2,200,000,000  
3870-3915 2,225,000,000  
3915-3960 2,250,000,000  
3960-4005 2,275,000,000  
4005-4050 2,300,000,000  
4050-4095 2,325,000,000  
4095-4140 2,350,000,000  
4140-4185 2,375,000,000  
4185-4230 2,400,000,000  
4230-4275 2,425,000,000  
4275-4320 2,450,000,000  
4320-4365 2,475,000,000  
4365-4410 2,500,000,000  
4410-4455 2,525,000,000  
4455-4500 2,550,000,000  
4500-4545 2,575,000,000  
4545-4590 2,600,000,000  
4590-4635 2,625,000,000  
4635-4680 2,650,000,000  
4680-4725 2,675,000,000  
4725-4770 2,700,000,000  
4770-4815 2,725,000,000  
4815-4860 2,750,000,000  
4860-4905 2,775,000,000  
4905-4950 2,800,000,000  
4950-4995 2,825,000,000  
4995-5040 2,850,000,000  
5040-5085 2,875,000,000  
5085-5130 2,900,000,000  
5130-5175 2,925,000,000  
5175-5220 2,950,000,000  
5220-5265 2,975,000,000  
5265-5310 3,000,000,000  
5310-5355 3,025,000,000  
5355-5400 3,050,000,000  
5400-5445 3,075,000,000  
5445-5490 3,100,000,000  
5490-5535 3,125,000,000  
5535-5580 3,150,000,000  
5580-5625 3,175,000,000  
5625-5670 3,200,000,000  
5670-5715 3,225,000,000  
5715-5760 3,250,000,000  
5760-5805 3,275,000,000  
5805-5850 3,300,000,000  
5850-5895 3,325,000,000  
5895-5940 3,350,000,000  
5940-5985 3,375,000,000  
5985-6030 3,400,000,000  
6030-6075 3,425,000,000  
6075-6120 3,450,000,000  
6120-6165 3,475,000,000  
6165-6210 3,500,000,000  
6210-6255 3,525,000,000  
6255-6300 3,550,000,000  
6300-6345 3,575,000,000  
6345-6390 3,600,000,000  
6390-6435 3,625,000,000  
6435-6480 3,650,000,000  
6480-6525 3,675,000,000  
6525-6570 3,700,000,000  
6570-6615 3,725,000,000  
6615-6660 3,750,000,000  
6660-6705 3,775,000,000  
6705-6750 3,800,000,000  
6750-6795 3,825,000,000  
6795-6840 3,850,000,000  
6840-6885 3,875,000,000  
6885-6930 3,900,000,000  
6930-6975 3,925,000,000  
6975-7020 3,950,000,000  
7020-7065 3,975,000,000  
7065-7110 4,000,000,000  
7110-7155 4,025,000,000  
7155-7200 4,050,000,000  
7200-7245 4,075,000,000  
7245-7290 4,100,000,000  
7290-7335 4,125,000,000  
7335-7380 4,150,000,000  
7380-7425 4,175,000,000  
7425-7470 4,200,000,000  
7470-7515 4,225,000,000  
7515-7560 4,250,000,000  
7560-7605 4,275,000,000  
7605-7650 4,300,000,000  
7650-7695 4,325,000,000  
7695-7740 4,350,000,000  
7740-7785 4,375,000,000  
7785-7830 4,400,000,000  
7830-7875 4,425,000,000  
7875-7920 4,450,000,000  
7920-7965 4,475,000,000  
7965-8010 4,500,000,000  
8010-8055 4,525,000,000  
8055-8100 4,550,000,000  
8100-8145 4,575,000,000  
8145-8190 4,600,000,000  
8190-8235 4,625,000,000  
8235-8280 4,650,000,000  
8280-8325 4,675,000,000  
8325-8370 4,700,000,000  
8370-8415 4,725,000,000  
8415-8460 4,750,000,000  
8460-8505 4,775,000,000  
8505-8550 4,800,000,000  
8550-8595 4,825,000,000  
8595-8640 4,850,000,000  
8640-8685 4,875,000,000  
8685-8730 4,900,000,000  
8730-8775 4,925,000,000  
8775-8820 4,950,000,000  
8820-8865 4,975,000,000  
8865-8910 5,000,000,000  
8910-8955 5,025,000,000  
8955-9000 5,050,000,000  
9000-9045 5,075,000,000  
9045-9090 5,100,000,000  
9090-9135 5,125,000,000  
9135-9180 5,150,000,000  
9180-9225 5,175,000,000  
9225-9270 5,200,000,000  
9270-9315 5,225,000,000  
9315-9360 5,250,000,000  
9360-9405 5,275,000,000  
9405-9450 5,300,000,000  
9450-9495 5,325,000,000  
9495-9540 5,350,000,000  
9540-9585 5,375,000,000  
9585-9630 5,400,000,000  
9630-9675 5,425,000,000  
9675-9720 5,450,000,000  
9720-9765 5,475,000,000  
9765-9810 5,500,000,000  
9810-9855 5,525,000,000  
9855-9900 5,550,000,000  
9900-9945 5,575,000,000  
9945-9990 5,600,000,000  
9990-10035 5,625,000,000  
10035-10080 5,650,000,000  
10080-10125 5,675,000,000  
10125-10170 5,700,000,000  
10170-10215 5,725,000,000  
10215-10260 5,750,000,000  
10260-10305 5,775,000,000  
10305-10350 5,800,000,000  
10350-10395 5,825,000,000  
10395-10440 5,850,000,000  
10440-10485 5,875,000,000  
10485-10530 5,900,000,000  
10530-10575 5,925,000,000  
10575-10620 5,950,000,000  
10620-10665 5,975,000,000  
10665-10710 6,000,000,000  
10710-10755 6,025,000,000  
10755-10800 6,050,000,000  
10800-10845 6,075,000,000  
10845-10890 6,100,000,000  
10890-10935 6,125,000,000  
10935-10980 6,150,000,000  
10980-11025 6,175,000,000  
11025-11070 6,200,000,000  
11070-11115 6,225,000,000  
11115-11160 6,250,000,000  
11160-11205 6,275,000,000  
11205-11250 6,300,000,000  
11250-11295 6,325,000,000  
11295-11340 6,350,000,000  
11340-11385 6,375,000,000  
11385-11430 6,400,000,000  
11430-11475 6,425,000,000  
11475-11520 6,450,000,000  
11520-11565 6,475,000,000  
11565-11610 6,500,000,000  
11610-11655 6,525,000,000  
11655-11700 6,550,000,000  
11700-11745 6,575,000,000  
11745-11790 6,600,000,000  
11790-11835 6,625,000,000  
11835-11880 6,650,000,000  
11880-11925 6,675,000,000  
11925-11970 6,700,000,000  
11970-12015 6,725,000,000  
12015-12060 6,750,000,000  
12060-12105 6,775,000,000  
12105-12150 6,800,000,000  
12150-12195 6,825,000,000  
12195-12240 6,850,000,000  
12240-12285 6,875,000,000  
12285-12330 6,900,000,000  
12330-12375 6,925,000,000  
12375-12420 6,950,000,000  
12420-12465 6,975,000,000  
12465-12510 7,000,000,000  
12510-12555 7,025,000,000  
12555-12600 7,050,000,000  
12600-12645 7,075,000,000  
12645-12690 7,100,000,000  
12690-12735 7,125,000,000  
12735-12780 7,150,000,000  
12780-12825 7,175,000,000  
12825-12870 7,200,000,000  
12870-12915 7,225,000,000  
12915-12960 7,250,000,000  
12960-13005 7,275,000,000  
13005-13050 7,300,000,000  
13050-13095 7,325,000,000  
13095-13140 7,350,000,000  
13140-13185 7,375,000,000  
13185-13230 7,400,000,000  
13230-13275 7,425,000,000  
13275-13320 7,450,000,000  
13320-13365 7,475,000,000  
13365-13410 7,500,000,000  
13410-13455 7,525,000,000  
13455-13500 7,550,000,000  
13500-13545 7,575,000,000  
13545-13590 7,600,000,000  
13590-13635 7,625,000,000  
13635-13680 7,650,000,000  
13680-13725 7,675,000,000  
13725-13770 7,700,000,000  
13770-13815 7,725,000,000  
13815-13860 7,750,000,000  
13860-13905 7,775,000,000  
13905-13950 7,800,000,000  
13950-13995 7,825,000,000  
13995-14040 7,850,000,000  
14040-14085 7,875,000,000  
14085-14130 7,900,000,000  
14130-14175 7,925,000,000  
14175-14220 7,950,000,000  
14220-14265 7,975,000,000  
14265-14310 8,000,000,000  
14310-14355 8,025,000,000  
14355-14400 8,050,000,000  
14400-14445 8,075,000,000  
14445-14490 8,100,000,000  
14490-14535 8,125,000,000  
14535-14580 8,150,000,000  
14580-14625 8,175,000,000  
14625-14670 8,200,000,000  
14670-14715 8,225,000,000  
14715-14760 8,250,000,000  
14760-14805 8,275,000,000  
14805-14850 8,300,000,000  
14850-14895 8,325,000,000  
14895-14940 8,350,000,000  
14940-14985 8,375,000,000  
14985-15030 8,400,000,000  
15030-15075 8,425,000,000  
15075-15120 8,450,000,000  
15120-15165 8,475,000,000  
15165-15210 8,500,000,000  
15210-15255 8,525,000,000  
15255-15300 8,550,000,000  
15300-15345 8,575,000,000  
15345-15390 8,600,000,000  
15390-15435 8,625,000,000  
15435-15480 8,650,000,000  
15480-15525 8,675,000,000  
15525-15570 8,700,000,000  
15570-15615 8,725,000,000  
15615-15660 8,750,000,000  
15660-15705 8,775,000,000  
15705-15750 8,800,000,000  
15750-15795 8,825,000,000  
15795-15840 8,850,000,000  
15840-15885 8,875,000,000  
15885-15930 8,900,000,000  
15930-15975 8,925,000,000  
15975-16020 8,950,000,000  
16020-16065 8,975,000,000  
16065-16110 9,000,000,000  
16110-16155 9,025,000,000  
16155-16200 9,050,000,000  
16200-16245 9,075,000,000  
16245-16290 9,100,000,000  
16290-16335 9,125,000,000  
16335-16380 9,150,000,000  
16380-16425 9,175,000,000  
16425-16470 9,200,000,000  
16470-16515 9,225,000,000  
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16605-16650 9,300,000,000  
16650-16695 9,325,000,000  
16695-16740 9,350,000,000  
16740-16785 9,375,000,000  
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16830-16875 9,425,000,000  
16875-16920 9,450,000,000  
16920-16965 9,475,000,000  
16965-17010 9,500,000,000  
17010-17055 9,525,000,000  
17055-17100 9,550,000,000  
17100-17145 9,575,000,000  
17145-17190 9,600,000,000  
17190-17235 9,625,000,000  
17235-17280 9,650,000,000  
17280-17325 9,675,000,000  
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17820-17865 9,975,000,000  
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18090-18135 10,125,000,000  
18135-18180 10,150,000,000  
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18225-18270 10,200,000,000  
18270-18315 10,225,000,000  
18315-18360 10,250,000,000  
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18405-18450 10,300,000,000  
18450-18495 10,325,000,000  
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18630-18675 10,425,000,000  
18675-18720 10,450,000,000  
18720-18765 10,475,000,000  
18765-18810 10,500,000,000  
18810-18855 10,525,000,000  
18855-18900 10,550,000,000  
18900-18945 10,575,000,000  
18945-18990 10,600,000,000  
18990-19035 10,625,000,000  
19035-19080 10,650,000,000  
19080-19125 10,675,000,000  
19125-19170 10,700,000,000  
19170-19215 10,725,000,000  
19215-19260 10,750,000,000  
19260-19305 10,775,000,000  
19305-19350 10,800,000,000  
19350-19395 10,825,000,000  
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19440-19485 10,875,000,000  
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19575-19620 10,950,000,000  
19620-19665 10,975,000,000  
19665-19710 11,000,000,000  
19710-19755 11,025,000,000  
19755-19800 11,050,000,000  
19800-19845 11,075,000,000  
19845-19890 11,100,000,000  
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20385-20430 11,400,000,000  
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20475-20520 11,450,000,000  
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20565-20610 11,500,000,000  
20610-20655 11,525,000,000  
20655-20700 11,550,000,000  
20700-20745 11,575,000,000  
20745-20790 11,600,000,000  
20790-20835 11,625,000,000  
20835-20880 11,650,000,000  
20880-20925 11,675,000,000  
20925-20970 11,700,000,000  
20970-21015 11,725,000,000  
21015-21060 11,750,000,000  
21060-21105 11,775,000,000  
21105-21150 11,800,000,000  
21150-21195 11,825,000,000  
21195-21240 11,850,000,000  
21240-21285 11,875,000,000  
2



7. FEES COLLECTED

Over \$50,000	10
\$44,001 to \$50,000	9
\$38,001 to \$44,000	8
\$32,001 to \$38,000	7
\$26,001 to \$32,000	6
\$20,001 to \$26,000	5
\$14,001 to \$20,000	4
\$8001 to \$14,000	3
\$2001 to \$8000	2
\$1 to \$2000	1
None	0

8. COMPETITIVE PERMITS PROCESSED

5 or more permits	9
4 permits	7
3 permits	5
2 permits	3
1 permit	1

2. FEES COLLECTED

Over \$50,000  
\$45,001 to \$50,000  
\$38,001 to \$45,000  
\$32,001 to \$38,000  
\$25,001 to \$32,000  
\$18,001 to \$25,000  
\$12,001 to \$18,000  
\$5,001 to \$12,000  
None

3. COMPETITIVE PERMIT PROCESSING

2 or more permits  
1 permit

10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0

10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0



# RECREATION ANALYSIS FOR BELL RIVER

	RMA# 1	RMA# 2	SUM
COM PERMIT	0	0	0
NONCOM PERM	0	0	0
FAC VALUE	0	1	1
VIS HOURS	0	3	3
FAC SITES	0	2	2
VISITS	0	1	1
FEES	0	0	0
COMPET PER	0	0	0
SUM	0	7	7

# RECREATION ANALYSIS FOR PONY EXPRESS

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	SUM
COM PERMIT	0	3	0	1	4
NONCOM PERM	1	1	0	1	3
FAC VALUE	2	0	0	0	2
VIS HOURS	4	1	0	1	6
FAC SITES	2	0	0	0	2
VISITS	1	1	0	1	3
FEES	0	1	0	1	2
COMPET PER	0	9	0	2	11
SUM	10	16	0	7	33

ROW 1 ROW 2 SUM

CON PERMIT	0	0	0
WOMEN PERM	0	0	0
PAC VALUE	0	1	1
WIS HOUSE	0	2	2
PAC SITES	0	2	2
WISITE	0	1	1
FEES	0	0	0
CHET PER	0	0	0
SUM	0	7	7

ROW 1 ROW 2 ROW 3 SUM

CON PERMIT	0	0	0	0
WOMEN PERM	0	0	0	0
PAC VALUE	0	0	0	0
WIS HOUSE	0	0	0	0
PAC SITES	0	0	0	0
WISITE	0	0	0	0
FEES	0	0	0	0
CHET PER	0	0	0	0
SUM	0	0	0	0



# RECREATION ANALYSIS FOR DIXIE

	RMA# 1	SUM
COM PERMIT	1	1
NONCOM PERM	0	0
FAC VALUE	4	4
VIS HOURS	7	7
FAC SITES	3	3
VISITS	6	6
FEES	1	1
CMPET PER	5	5
SUM	27	27

# RECREATION ANALYSIS FOR KANAB

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	SUM
COM PERMIT	0	1	1	1	3
NONCOM PERM	0	0	0	0	0
FAC VALUE	2	3	1	0	6
VIS HOURS	4	1	2	1	8
FAC SITES	1	1	1	0	3
VISITS	1	1	1	1	4
FEES	0	1	1	1	3
CMPET PER	0	0	0	0	0
SUM	8	6	7	4	27

# REGISTRATION ANALYSIS FOR 2012

Phase 1 Data

CON PERMIT	1	1
NON-CON PERMIT	2	2
ENC VALUE	3	3
1/2 HOUSE	4	4
ENC SITES	5	5
VISITS	6	6
FEES	7	7
CHART PER	8	8

2012

# REGISTRATION ANALYSIS FOR 2013

Phase 1 Data 2 Phase 3 Data 2013

CON PERMIT	1	1	1	1
NON-CON PERMIT	2	2	2	2
ENC VALUE	3	3	3	3
1/2 HOUSE	4	4	4	4
ENC SITES	5	5	5	5
VISITS	6	6	6	6
FEES	7	7	7	7
CHART PER	8	8	8	8



# RECREATION ANALYSIS FOR ESCALANTE

FORM 1 FORM 2 FORM 3 FORM 4 SUM

COM PERMIT	0	0	0	0
NONCOM PERM	0	0	0	0
FAC VALUE	2	14	1	17
VIS HOURS	1	2	2	5
FAC SITES	1	1	1	3

## RECREATION ANALYSIS FOR ESCALANTE

FORM 1 FORM 2 FORM 3 FORM 4 SUM

	RMA# 1	RMA# 2	SUM
COM PERMIT	4	0	4
NONCOM PERM	3	0	3
FAC VALUE	4	0	4
VIS HOURS	8	1	9
FAC SITES	3	1	4
VISITS	2	1	3
FEEES	2	0	2
COMPET PER	0	0	0
SUM	26	3	29

FAC VALUE	4	14	1	19
VIS HOURS	4	2	2	8
FAC SITES	13	12		25
VISITS	2	3		5
FEEES	0	9		9
COMPET PER	0	0		0
SUM	22	38		60

# RECREATION ANALYSIS FOR ESCALANTE

RMAN 1 RMAN 2 SUM

CON PERMIT	4	0	4
NONCON PERM	3	0	3
PAC VALUE	4	0	4
VIS HOURS	6	1	7
PAC SITES	3	1	4
VISITS	2	1	3
FEES	3	0	3
CHPFT PER	0	0	0
SUM	24	2	26



# RECREATION ANALYSIS FOR HOUSE RANGE

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	SUM
COM PERMIT	0	0	0	0	0
NONCOM PERM	0	0	0	0	0
FAC VALUE	1	0	14	1	16
VIS HOURS	1	0	7	2	10
FAC SITES	1	0	7	1	9
VISITS	1	0	10	1	12
FEES	0	0	8	0	8
CNPET PER	0	0	1	5	6
SUM	4	0	47	10	61

# RECREATION ANALYSIS FOR HENRY MOUNTAIN

	RMA# 1	SUM
COM PERMIT	0	0
NONCOM PERM	1	1
FAC VALUE	3	3
VIS HOURS	4	4
FAC SITES	12	12
VISITS	2	2
FEES	0	0
CNPET PER	0	0
SUM	22	22

RECREATION ANALYSIS FOR HILL COUNTY

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	SUM
CON PERMIT	0	0	0	0	0
NONCON PERM	0	0	0	0	0
TRC VALUE	1	0	10	1	12
VIS HOURS	1	0	7	2	10
PAC SITES	1	0	7	2	10
VISITS	1	0	10	1	12
FEES	0	0	0	0	0
CHGT PER	0	0	1	2	3
SUM	3	0	17	10	30

RECREATION ANALYSIS FOR DE WY MOUNTAIN

	PHASE 1	SUM
CON PERMIT	0	0
NONCON PERM	1	1
TRC VALUE	3	3
VIS HOURS	4	4
PAC SITES	12	12
VISITS	2	2
FEES	0	0
CHGT PER	0	0
SUM	22	22



# RECREATION ANALYSIS FOR PRICE RIVER

	RMA# 1	RMA# 2	RMA# 3	SUM
COM PERMIT	13	0	2	15
NONCOM PERM	10	0	0	10
FAC VALUE	2	3	5	10
VIS HOURS	13	1	3	17
FAC SITES	3	1	3	7
VISITS	3	1	2	6
FEES	9	0	1	10
COMPET PER	0	0	1	1
SUM	53	6	17	76

# RECREATION ANALYSIS FOR SAN RAFAEL

	RMA# 1	RMA# 2	RMA# 3	SUM
COM PERMIT	3	0	0	3
NONCOM PERM	0	1	0	1
FAC VALUE	1	0	0	1
VIS HOURS	1	1	1	3
FAC SITES	2	0	0	2
VISITS	1	1	1	3
FEES	1	1	1	3
COMPET PER	0	0	1	1
SUM	9	4	4	17





# RECREATION ANALYSIS FOR GRAND

	RMA# 1	RMA# 2	RMA# 3	SUM
COM PERMIT	10	0	3	13
NONCOM PERM	10	0	0	10
FAC VALUE	2	14	1	17
VIS HOURS	6	3	3	12
FAC SITES	3	7	1	11
VISITS	2	1	1	4
FEES	6	1	1	8
CNPET PER	0	0	1	1
SUM	39	26	11	76

# RECREATION ANALYSIS FOR SAN JUAN

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	SUM
COM PERMIT	4	3	7	2	16
NONCOM PERM	5	0	13	0	18
FAC VALUE	3	0	1	3	7
VIS HOURS	3	1	7	1	12
FAC SITES	3	0	1	0	4
VISITS	2	1	2	1	6
FEES	1	1	6	1	9
CNPET PER	0	0	5	0	5
SUM	21	6	42	8	77





# RECREATION ANALYSIS FOR DIAMOND MTH

	RMA# 1	RMA# 2	RMA# 3	SUM
) COM PERMIT	0	0	0	0
NONCOM PERM	0	0	0	0
FAC VALUE	3	2	0	5
) VIS HOURS	5	5	0	10
FAC SITES	3	1	0	4
) VISITS	2	1	0	3
) FEES	0	0	0	0
) CMPET PER	0	0	0	0
SUM	13	8	0	22

# RECREATION ANALYSIS FOR BOON CLIFFS

	RMA# 1	SUM
COM PERMIT	0	0
NONCOM PERM	0	0
FAC VALUE	1	1
VIS HOURS	1	1
FAC SITES	1	1
VISITS	1	1
FEES	0	0
CMPET PER	0	0
SUM	4	4

# RECREATION ANALYSIS FOR BOYS' CLUB

	TIME 1	TIME 2	TIME 3	TIME 4
CON PERMIT	0	0	0	0
HOODON PERM	0	0	0	0
POC VALUE	0	0	0	0
VIS HOUR	0	0	0	0
PAC BATES	0	0	0	0
VISITE	0	0	0	0
FEES	0	0	0	0
CHET PER	0	0	0	0
SUM	0	0	0	0

# RECREATION ANALYSIS FOR BOYS' CLUB

	TIME 1	TIME 2
CON PERMIT	0	0
HOODON PERM	0	0
POC VALUE	0	0
VIS HOUR	0	0
PAC BATES	0	0
VISITE	0	0
FEES	0	0
CHET PER	0	0
SUM	0	0



the next five states based on  
 selling for a statewide average  
 based on the percentage of the total

TABLE 2: Salts Lake District

	Area
Commercial Permits	2
Noncommercial Permits	2
Utility Value (\$000)	2
Water Hours	24,000
Utility Sites	120
Water	2700
Water Collected	2
Repetitive Permits	2

APPENDIX C

TABLE 3: Ledger City District

	Area
Commercial Permits	2
Noncommercial Permits	2
Utility Value (\$000)	2
Water Hours	24,000
Utility Sites	120
Water	2700
Water Collected	2
Repetitive Permits	2

TABLE 4: Richfield District

	Area
Commercial Permits	2
Noncommercial Permits	2
Utility Value (\$000)	2
Water Hours	24,000
Utility Sites	120
Water	2700
Water Collected	2
Repetitive Permits	2

APPENDIX C



# APPENDIX C

## Resource Area and RMA Data

The next five tables break down the data presented in Table 1 by resource area. When reading for a statewide overview, the reader may wish to skip to Section B on page 12, where the percentage of the statewide workload found in each district is discussed.

TABLE 2: Salt Lake District Recreation Data by Resource Area and Workload Indicator

	Bear River	Pony Express	Total
Commercial Permits	0	4	4
Noncommercial Permits	0	8	8
Facility Value (\$000)	5	100	105
Visitor Hours	26,400	66,000	92,400
Facility Sites	2SD	1D	1D/2SD
Visits	3700	5900	9600
Fees Collected	0	\$1600	\$1600
Competitive Permits	0	7	7

TABLE 3: Cedar City District Recreation Data by Resource Area and Workload Indicator

	Beaver R.	Dixie	Kanab	Escalante	Total
Commercial Permits	0	1	3	5	9
Noncommercial Permits	0	0	0	140(560)	140
Facility Value (\$000)	0	213	242	260	715
Visitor Hours	0	202,893	84,178	297,390	584,461
Facility Sites	0	1D/1SD	3SD	1D/2SD	2D/6SD
Visits	0	54,121	9,169	18,744	82,034
Fees Collected	0	\$650	\$250	\$7450	\$8350
Competitive Permits	0	3	0	0	3

TABLE 4: Richfield District Recreation Data by Resource Area and Workload Indicator

	House Rng.	Warm Sprgs.	Sevier R.	Henry Mtn.	Total
Commercial Permits	0	0	0	0	0
Noncommercial Permits	0	0	0	1	1
Facility Value (\$000)	3,467	0	0	108	3,575
Visitor Hours	238,852	0	0	51,605	290,457
Facility Sites	3D/3SD	0	0	4D/4SD	7D/7SD
Visits	94,577	0	0	13,126	107,703
Fees Collected	\$40,269	0	0	0	\$40,269
Competitive Permits	4	0	0	0	4





TABLE 5: Moab District Recreation Data by Resource Area and Workload Indicator

	Price R. San Rafael		Grand	San Juan	Total
Commercial Permits	26	3	21	22	72
Noncommercial Permits	600	1	560	1072(969)	2233
Facility Value (\$000)	737	46	3,618	180	4,581
Visitor Hours	875,318	17,204	241,183	286,700	1,420,405
Facility Sites	1D/5SD	1D	2D/7SD	4SD	4D/16SD
Visits	39,378	1324	32,119	27,270	95,091
Fees Collected	\$46,232	\$839	\$32,756	\$32,090	\$111,917
Competitive Permits	1	1	1	3	6

TABLE 6: Vernal District Recreation Data by Resource Area and Workload Indicator

	Diamond Mountain		Book Cliffs	Total
Commercial Permits	0		0	0
Noncommercial Permits	0		0	0
Facility Value (\$000)	230		20	250
Visitor Hours	236,650		2200	238,850
Facility Sites	4SD		1SD	5SD
Visits	16,650		5400	22,050
Fees Collected	0		0	0
Competitive Permits	0		0	0

Workload points for each resource area are generated using Recreation Management Area data from the next set of tables. The percentages taken from these point totals will not always sum exactly to the percentages for the district due rounding differences and because district workload points are generated directly from districtwide data. Generating resource area workload points by summing RMA points gives emphasis to resource areas with more than 1 RMA which ranks well. The concept behind this is that it is more difficult to manage more than 1 major use area.

The tables on the next 6 pages break the data down by Recreation Management Area (RMA).

TABLE 5: Wash District Recreation Data by Resource Area and Workload Indicator

Resource Area	Workload Indicator	Price \$ (San Rafael)	Grand San Juan	Total
Commercial Permits		65	21	75
Noncommercial Permits		600	660 (00210001)	5213
Facility Value (\$000)		137	2,818	4,581
Visitor Hours		675,318	541,183	1,450,402
Facility Sites		10,550	10,750	40,000
Visits		28,318	27,119	92,001
Fees Collected		146,315	212,755	211,917
Competitive Permits		1	1	2

TABLE 6: Wash District Recreation Data by Resource Area and Workload Indicator

Resource Area	Workload Indicator	Grand Canyon	Soak City	Total
Commercial Permits		0	0	0
Noncommercial Permits		0	0	0
Facility Value (\$000)		230	20	250
Visitor Hours		236,800	2700	238,800
Facility Sites		450	150	220
Visits		16,600	6100	22,000
Fees Collected		6	0	0
Competitive Permits		0	0	0

Workload points for each resource area are generated using the following formula: (Resource Area Value / Total Resource Area Value) \* 100. The percentages taken from these points totals will not always add exactly to the percentages for the district due to rounding differences and because district workload points are generated directly from district data. Generating resource area workload points by dividing the points gives estimates to resource areas with more than 1 point which may vary. The concept behind this is that it is more difficult to manage more than 1 point use area.

The tables on the next 2 pages break the data down by Recreation Management Area (RMA).



Salt Lake District

Bear River Resource Area

	RMA# 1	RMA# 2	Total
Commercial Permits	0	0	0
Noncommercial Permits	0	0	0
Facility Value (\$000)	0	5	5
Visitor Hours	0	26,400	26,400
Facility Sites	0	2SD	2SD
Visits	0	3700	3700
Fees Collected	0	0	0
Competitive Permits	0	0	0

RMA# 1 = Railroad Grade

RMA# 2 = Bear River Extensive

Pony Express Resource Area (SLDO)

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	Total
Commercial Permits	0	3	0	1	4
Noncommercial Permits	3	1	0	4	8
Facility Value (\$000)	100	0	0	0	100
Visitor Hours	57,600	2700	0	5700	66,000
Facility Sites	1D	0	0	0	1D
Visits	4400	600	0	900	5900
Fees Collected	0	\$800	0	\$800	\$1600
Competitive Permits	0	5	0	2	7

RMA# 1 = Pony Express Trail

RMA# 2 = Bonneville Salt Flats

RMA# 3 = North Deep Creek Mountains

RMA# 4 = Pony Express Extensive

Safe Lake District

Safe River District Area

Category	Safe 1	Safe 2	Total
Commercial Points	0	0	0
Noncommercial Points	0	0	0
Facility Value (\$200)	0	0	0
Visitor Points	0	20,400	20,400
Facility Sites	0	500	500
Visits	0	3,000	3,000
Fees Collected	0	0	0
Corporate Points	0	0	0

Safe 1 = Safe River Area  
Safe 2 = Safe River Extension

Safe River District Area

Category	Safe 1	Safe 2	Safe 3	Safe 4	Total
Commercial Points	0	0	0	0	0
Noncommercial Points	0	0	0	0	0
Facility Value (\$200)	0	0	0	0	0
Visitor Points	20,400	1,000	0	0	21,400
Facility Sites	0	0	0	0	0
Visits	3,000	0	0	0	3,000
Fees Collected	0	0	0	0	0
Corporate Points	0	0	0	0	0

Safe 1 = Safe River Area  
Safe 2 = Safe River Extension  
Safe 3 = Safe River Extension  
Safe 4 = Safe River Extension



Cedar City DistrictBeaver River Resource Area ---No Data to ListDixie Resource Area

## RMA# 1

Commercial Permits	1
Noncommercial Permits	0
Facility Value (\$000)	213
Visitor Hours	202,893
Facility Sites	1D/1SD
Visits	54,121
Fees Collected	\$650
Competitive Permits	3

RMA# 1 = Dixie Extensive

Kanab Resource Area

## RMA# 1

## RMA# 2

## RMA# 3

## RMA# 4

## Total

Commercial Permits	0	1	1	1	3
Noncommercial Permits	0	0	0	0	0
Facility Value (\$000)	90	140	12	0	242
Visitor Hours	60,400	4078	18,980	720	84,178
Facility Sites	1SD	1SD	1SD	0	3SD
Visits	2700	440	6014	15	9169
Fees Collected	0	\$100	\$50	\$100	\$250
Competitive Permits	0	0	0	0	0

RMA# 1 = Moquith Mountain

RMA# 2 = Paria Canyon/Vermillion Cliffs

RMA# 3 = Paria/Hackberry

RMA# 4 = Kanab Extensive

Escalante Resource Area

## RMA# 1

## RMA# 2

## Total

Commercial Permits	5	0	5
Noncommercial Permits	140(560)	0	140(560)
Facility Value (\$000)	260	-	260
Visitor Hours	295,793	1597	297,390
Facility Sites	1D/1SD	1SD	1D/2SD
Visits	18,246	498	18,744
Fees Collected	\$7450	0	\$7450
Competitive Permits	0	0	0

RMA# 1 = Canyons of the Escalante

RMA# 2 = Escalante Extensive

Outer City District

Beaver River Resource Area -- No Data in List

Outer Resource Area

WMA 1

1

0

273

205,000

10,000

54,127

0

1

Commercial Forests  
Noncommercial Forests  
Facility Value (\$000)  
Visitor Hours  
Facility Sites  
Visitors  
Fees Collected  
Competitive Forests

WMA 1 = Outer Resource Area

Inner Resource Area

WMA 1

0

0

90

40,000

120

270

0

0

Commercial Forests  
Noncommercial Forests  
Facility Value (\$000)  
Visitor Hours  
Facility Sites  
Visitors  
Fees Collected  
Competitive Forests

WMA 1 = Inner Resource Area  
WMA 2 = Outer Resource Area  
WMA 3 = Outer Resource Area  
WMA 4 = Outer Resource Area

Facilities Resource Area

WMA 1

2

10,000

300

205,000

10,000

10,000

0

0

Commercial Forests  
Noncommercial Forests  
Facility Value (\$000)  
Visitor Hours  
Facility Sites  
Visitors  
Fees Collected  
Competitive Forests

WMA 1 = Facilities Resource Area  
WMA 2 = Facilities Resource Area

WMA 1 WMA 2 WMA 3 WMA 4 Total

1 0 1 1 3  
0 0 0 0 0  
0 0 12 0 12  
0 0 10,000 0 10,000  
0 0 270 0 270  
0 0 120 0 120  
0 0 270 0 270  
0 0 0 0 0  
0 0 0 0 0

1 0 1 1 3  
0 0 0 0 0  
0 0 12 0 12  
0 0 10,000 0 10,000  
0 0 270 0 270  
0 0 120 0 120  
0 0 270 0 270  
0 0 0 0 0  
0 0 0 0 0



Richfield DistrictHouse Range Resource Area

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	Total
Commercial Permits	0	0	0	0	0
Noncommercial Permits	0	0	0	0	0
Facility Value (\$000)	2	0	3,452	13	3,467
Visitor Hours	2080	0	226,132	10,640	238,852
Facility Sites	1SD	0	3D/1SD	1SD	3D/3SD
Visits	1040	0	90,317	3220	94,577
Fees Collected	0	0	\$40,269	0	\$40,269
Competitive Permits	0	0	1	3	4

RMA# 1 = Pony Express

RMA# 2 = Deep Creek Mountains

RMA# 3 = Little Sahara

RMA# 4 = House Range Extensive

Warm Springs Resource Area ---No Data to ListSevier River Resource Area ---No Data to ListHenry Mountain Resource Area

	RMA# 1
Commercial Permits	0
Noncommercial Permits	1
Facility Value (\$000)	108
Visitor Hours	51,605
Facility Sites	4D/4SD
Visits	13,126
Fees Collected	0
Competitive Permits	0

RMA# 1 = Henry Mountain Extensive





Moab DistrictPrice River Resource Area

	RMA# 1	RMA# 2	RMA# 3	Total
Commercial Permits	24	0	2	26
Noncommercial Permits	600	0	0	600
Facility Value (\$000)	79	162	496	737
Visitor Hours	718,240	4270	152,800	875,318
Facility Sites	3SD	1SD	1D/1SD	1D/5SD
Visits	22,240	3779	13,359	39,378
Fees Collected	\$45,002	0	\$1230	\$46,232
Competitive Permits	0	0	1	1

RMA# 1 = Desolation Canyon

RMA# 2 = Cleveland Lloyd Dinosaur Quarry

RMA# 3 = Price River Extensive

San Rafael Resource Area

	RMA# 1	RMA# 2	RMA# 3	Total
Commercial Permits	3	0	0	3
Noncommercial Permits	0	1	0	1
Facility Value (\$000)	46	0	0	46
Visitor Hours	9704	6000	1500	17,204
Facility Sites	1D	0	0	1D
Visits	704	320	300	1324
Fees Collected	\$365	\$190	\$284	\$839
Competitive Permits	0	0	1	1

RMA# 1 = San Rafael Swell

RMA# 2 = Labyrinth Canyon

RMA# 3 = San Rafael Extensive

# Moab District

## Price River Resource Area

Category	Unit 1	Unit 2	Unit 3	Total
Commercial Permits	24	0	0	24
Noncommercial Permits	600	0	0	600
Facility Value (\$1000)	78	162	486	726
Station Hours	118,140	45,720	125,800	289,660
Facility Sites	150	120	10,120	10,390
Visitors	52,240	379	13,924	66,543
Fees Collected	\$42,000	0	\$1,230	\$43,230
Logistical Permits	0	0	0	0

Unit 1 = Recreation Canyon  
Unit 2 = Chinle/Lake Powell Quarry  
Unit 3 = Price River-Lake Powell

## San Rafael Resource Area

Category	Unit 1	Unit 2	Unit 3	Total
Commercial Permits	3	0	0	3
Noncommercial Permits	0	1	0	1
Facility Value (\$1000)	46	0	0	46
Station Hours	9700	4000	1000	14,700
Facility Sites	20	0	0	20
Visitors	704	320	301	1,325
Fees Collected	\$345	\$190	\$234	\$769
Logistical Permits	0	0	0	0

Unit 1 = San Rafael South  
Unit 2 = Lake Powell Canyon  
Unit 3 = San Rafael East



Moab District (continued)Grand Resource Area

	RMA# 1	RMA# 2	RMA# 3	Total
Commercial Permits	18	0	3	21
Noncommercial Permits	560	0	0	560
Facility Value (\$000)	74	3,541	3	3,618
Visitor Hours	175,266	28,597	37,320	241,183
Facility Sites	3SD	2D/3SD	1SD	2D/7SD
Visits	19,327	5752	7040	32,119
Fees Collected	\$30,378	\$1411	\$967	\$32,756
Competitive Permits	0	0	1	1

RMA# 1 = Colorado River  
 RMA# 2 = Canyon Rims  
 RMA# 3 = Grand Extensive

San Juan Resource Area

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	Total
Commercial Permits	6	3	11	2	22
Noncommercial Permits	242(969)	0	830	0	1072
Facility Value (\$000)	167	0	13	0	180
Visitor Hours	32,400	9500	242,800	2000	286,700
Facility Sites	3SD	0	1SD	0	4SD
Visits	12,980	90	14,100	100	27,270
Fees Collected	\$900	\$1200	\$29,400	\$590	\$32,090
Competitive Permits	0	0	3	0	3

RMA# 1 = Grand Gulch  
 RMA# 2 = Dark Canyon  
 RMA# 3 = San Juan River  
 RMA# 4 = San Juan Extensive

# North District (continued)

Grand Resource Area	RM 1	RM 2	RM 3	Total
Commercial Permits	18	0	3	21
Noncommercial Permits	660	0	0	660
Facility Value (\$000)	74	3,541	3	3,618
Station Hours	775,586	58,047	27,350	860,983
Facility Sites	320	20,350	120	20,790
Visits	19,377	9,787	7040	36,904
Fees Collected	\$20,378	\$7,471	\$997	\$28,846
Corrective Permits	0	0	1	1

RM 1 = Colorado River  
RM 2 = Canyon Area  
RM 3 = Grand Extension

San Juan Resource Area	RM 1	RM 2	RM 3	Total
Commercial Permits	0	1	11	12
Noncommercial Permits	545,963	0	830	546,793
Facility Value (\$000)	167	0	13	180
Station Hours	32,400	22,000	342,801	397,201
Facility Sites	320	0	120	440
Visits	12,380	60	16,100	28,540
Fees Collected	\$200	\$250	\$29,400	\$30,000
Corrective Permits	0	0	3	3

RM 1 = Grand Canyon  
RM 2 = San Juan  
RM 3 = San Juan Extension



Vernal DistrictDiamond Mountain Resource Area

	RMA# 1	RMA# 2	RMA# 3	Total
Commercial Permits	0	0	0	0
Noncommercial Permits	0	0	0	0
Facility Value (\$000)	120	90	0	210
Visitor Hours	128,650	108,000	0	236,650
Facility Sites	3SD	1SD	0	4SD
Visits	13,350	3300	0	16,650
Fees Collected	0	0	0	0
Competitive Permits	0	0	0	0

RMA# 1 = Browns Park

RMA# 2 = Pelican Lake

RMA# 3 = Diamond Mountain Extensive

Book Cliffs Resource Area

## RMA# 1

Commercial Permits	0
Noncommercial Permits	0
Facility Value (\$000)	20
Visitor Hours	2200
Facility Sites	1SD
Visits	5400
Fees Collected	0
Competitive Permits	0

RMA# 1 = Book Cliffs Extensive





## APPENDIX D

APPENDIX B



# APPENDIX D

## Top 8 RAs and RMAs by Workload Category

The largest 8 programs are listed for each workload category together with the appropriate indicator and the percentage of the statewide workload that represents. These listings should give an indication where concentrations of workload, and experienced personnel, occur. In cases of a tie, more than 6 may be listed.

### 1. COMMERCIAL PERMITEES

<u>Resource Areas</u>	<u>Number</u>	<u>Percent</u>	<u>RMAs</u>	<u>Number</u>	<u>Percent</u>
Price River	26	30.6	Desolation Canyon	24	28.2
San Juan	22	25.9	Colorado River	18	21.1
Grand	21	24.7	San Juan River	11	12.9
Escalante	5	5.9	Grand Gulch	6	7.1
Pony Express	4	4.7	Cyns. of Escalante	5	5.9
Kanab	3	3.5	Bonn. Salt Flats	3	3.5
San Rafael	3	3.5	San Rafael Swell	3	3.5
Dixie	1	1.2	Dark Canyon	3	3.5

### 2. NONCOMMERCIAL PERMITS

<u>Resource Areas</u>	<u>Number</u>	<u>Percent</u>	<u>RMAs</u>	<u>Number</u>	<u>Percent</u>
San Juan	1072	45.0	San Juan River	830	34.8
Price River	600	25.2	Desolation Canyon	600	25.2
Grand	560	23.5	Colorado River	560	23.5
Escalante	140	5.9	Grand Gulch	242	10.2
Pony Express	8	0.3	Cyns. of Escalante	140	5.9
Henry Mountain	1	0.0	Bonn. Salt Flats	3	0.1
San Rafael	1	0.0	Henry Mountain Ext.	1	0.0
			Labyrinth Canyon	1	0.0

### 3. FACILITY REPLACEMENT VALUE (\$000)

<u>Resource Areas</u>	<u>Number</u>	<u>Percent</u>	<u>RMAs</u>	<u>Number</u>	<u>Percent</u>
Grand	3,618	39.2	Little Sahara*	3,452	37.4
House Range	3,467	37.6	Canyon Rims*	3,541	38.4
Price River	737	8.0	Price River Ext.	496	5.4
Escalante	260	2.8	Cyns. of Escalante	260	2.8
Kanab	242	2.7	Dixie Extensive	213	2.3
Dixie	213	2.3	Grand Gulch	167	1.8
Diamond Mountain	210	2.3	Cleveland Lloyd	162	1.8
San Juan	180	2.0	Paria/Vermillion	140	1.5

\* Statewide Meeting agreed Little Sahara was Utah's most complex site.

# APPENDIX D

## Top 5 RAs and WAs by Workload Category

The largest 5 programs are listed for each workload category, together with the appropriate indicator and the percentage of the workload that they represent. These listings should give an indication where concentrations of workload, and experienced personnel, occur. In cases of a tie, more than 5 may be listed.

### 1. COMMERCIAL PERMITS

Resource Area	Number	Percent	WMA	Number	Percent
Price River	28	30.6	Donation Canyon	14	28.2
San Juan	22	23.3	Colorado River	15	27.7
Grand	21	22.1	San Juan River	11	22.0
Escalante	2	2.1	Grand Valley	6	12.1
Pony Express	4	4.1	Cym. of Escalante	5	9.9
Kanab	3	3.2	Don. Salt Flats	3	5.9
San Rafael	3	3.2	San Rafael Swell	1	1.9
Plate	1	1.1	Dark Canyon	2	3.8

### 2. NONCOMMERCIAL PERMITS

Resource Area	Number	Percent	WMA	Number	Percent
San Juan	1075	42.0	San Juan River	630	24.8
Price River	601	23.5	Donation Canyon	520	20.2
Grand	580	22.8	Colorado River	500	19.5
Escalante	140	5.4	Grand Valley	245	9.6
Pony Express	6	0.2	Cym. of Escalante	140	5.3
Henry Mountains	1	0.0	Don. Salt Flats	3	0.1
San Rafael	1	0.0	Henry Mountains Swell	1	0.0
			Dark Canyon	1	0.0

### 3. FACILITY REPLACEMENT VALUE (\$'000)

Resource Area	Number	Percent	WMA	Number	Percent
Grand	3,618	39.5	Little Valley	2,622	27.9
Henry Mountains	3,467	37.6	Canyon River	2,241	24.4
Price River	737	8.0	Price River Swell	145	1.6
Escalante	590	6.4	Cym. of Escalante	500	5.4
Kanab	365	3.9	State Escalante	213	2.3
Utah	213	2.3	Grand Valley	107	1.2
Grand Mountains	210	2.3	Cleveland Ridge	165	1.8
San Juan	100	1.0	Paria Plateau	140	1.5

\* Statistics listing given Little Valley was Utah's most complex site.



## 4. VISITOR HOURS

<u>Resource Areas</u>	<u>Number</u>	<u>Percent</u>	<u>RMA's</u>	<u>Number</u>	<u>Percent</u>
Price River	875,318	33.3	Desolation Canyon	718,240	27.3
Escalante	297,390	11.3	Cyns. of Escalante	295,793	11.3
San Juan	286,700	10.9	San Juan River	242,800	9.2
Grand	241,183	9.2	Little Sahara	236,132	9.0
House Range	238,852	9.1	Dixie Extensive	202,893	7.7
Diamond Mountain	236,650	9.0	Colorado River	175,266	6.7
Dixie	202,893	7.7	Price River Ext.	152,800	5.8
Kanab	84,178	3.2	Browns Park	128,650	4.9

## 5. FACILITY SITES

<u>Resource Areas</u>	<u>Number</u>	<u>Percent</u>	<u>RMA's</u>	<u>Number</u>	<u>Percent</u>
Henry Mountain	4D/4SD	17.6	Henry Mtn. Ext.	4D/4SD	17.6
Grand	2D/7SD	16.2	Little Sahara	3D/1SD	10.3
House Range	3D/3SD	13.2	Canyon Rims	2D/3SD	10.3
Price River	1D/5SD	10.3	Dixie Extensive	1D/2SD	4.7
Escalante	1D/2SD	6.3	Cyns. of Escalante	1D/1SD	4.7
San Juan	4SD	6.3	Desolation Canyon	3SD	4.7
Diamond Mountain	4SD	6.3	Price River Ext.	1D/1SD	4.7
Kanab	3SD	4.7	Colorado River	3SD	4.7
			Grand Gulch	3SD	4.7
			Browns Park	3SD	4.7

## 6. VISITS

<u>Resource Areas</u>	<u>Number</u>	<u>Percent</u>	<u>RMA's</u>	<u>Number</u>	<u>Percent</u>
House Range	94,577	29.9	Little Sahara	90,317	28.5
Dixie	54,121	17.1	Dixie Extensive	54,121	17.1
Price River	39,378	12.4	Desolation Canyon	22,240	7.0
Grand	32,119	10.1	Colorado River	19,327	6.1
San Juan	27,270	8.6	Cyns. of Escalante	18,246	5.8
Escalante	18,744	5.9	San Juan River	14,100	4.4
Diamond Mountain	16,650	5.3	Price River Ext.	13,359	4.2
Henry Mountain	13,125	4.1	Browns Park	13,350	4.2

# 4. VISITOR INDEX

Resource Area	Number	Percent	Resource Area	Number	Percent
Price River	878,310	31.3	Grand Canyon	178,810	27.3
Escalante	527,300	17.3	Canyon of Escalante	185,700	17.3
San Juan	386,700	14.3	San Juan River	245,000	9.3
Grand	347,180	9.3	Cattle Lake	236,130	9.0
House Range	328,880	9.7	Utah Extension	105,800	7.3
Grand Mountain	325,600	8.0	Colorado River	175,550	8.7
Price	305,800	7.7	Price River Est.	105,800	8.8
Kenia	84,700	3.3	Brown Park	122,600	4.3

# 5. FACILITY INDEX

Resource Area	Number	Percent	Resource Area	Number	Percent
Henry Mountain	40,420	17.6	Henry Mts. Est.	40,420	17.6
Grand	30,720	16.3	Cattle Lake	30,720	16.3
House Range	30,720	16.3	Canyon Rim	30,720	16.3
Price River	10,720	10.3	Utah Extension	10,720	4.3
Escalante	10,720	6.3	Canyon of Escalante	10,720	4.3
San Juan	420	6.3	Grand Canyon	320	4.3
Grand Mountain	420	6.3	Price River Est.	10,720	4.3
Kenia	320	4.3	Colorado River	320	4.3
			Grand Gulch	320	4.3
			Brown Park	320	4.3

# 6. VISIT

Resource Area	Number	Percent	Resource Area	Number	Percent
House Range	88,870	28.3	Cattle Lake	80,310	28.3
Price River	51,470	17.3	Utah Extension	64,180	17.3
Grand	35,710	12.4	Grand Canyon	22,460	7.0
San Juan	17,520	6.3	Colorado River	18,300	6.3
Escalante	18,700	6.3	Canyon of Escalante	18,300	6.3
Grand Mountain	10,800	3.3	San Juan River	14,100	4.4
Henry Mountain	15,120	4.3	Price River Est.	13,380	4.3
			Brown Park	13,380	4.3



## 7. FEES COLLECTED

<u>Resource Areas</u>	<u>Amount</u>	<u>Percent</u>	<u>RMA's</u>	<u>Amount</u>	<u>Percent</u>
Price River	\$46,232	28.5	Desolation Canyon	\$45,002	27.8
House Range	\$40,269	24.8	Little Sahara	\$40,269	24.8
Grand	\$32,756	20.2	Colorado River	\$30,378	18.7
San Juan	\$32,090	19.8	San Juan River	\$29,400	18.1
Escalante	\$7,450	4.6	Cyns. of Escalante	\$7,450	4.6
Pony Express	\$1,600	1.0	Canyon Rims	\$1,411	0.9
San Rafael	\$839	0.5	Price River Ext.	\$1,230	0.8
Dixie	\$650	0.4	Dark Canyon	\$1,200	0.7

## 8. COMPETITIVE PERMITS

<u>Resource Areas</u>	<u>Number</u>	<u>Percent</u>	<u>RMA's</u>	<u>Number</u>	<u>Percent</u>
Pony Express	7	35.0	Bonn. Salt Flats	5	25.0
House Range	4	20.0	Dixie Extensive	3	15.0
Dixie	3	15.0	House Range Ext.	3	15.0
San Juan	3	15.0	San Juan River	3	15.0
Price River	1	5.0	Pony Express Ext.	2	10.0
San Rafael	1	5.0	Little Sahara	1	5.0
Grand	1	5.0	Price River Ext.	1	5.0
			San Rafael Ext.	1	5.0
			Grand Extensive	1	5.0

# 7. FEES COLLECTED

Resource Area	Amount	Percent	Time	Amount	Percent
Price River	\$46,525	28.8	Desolation Canyon	\$42,005	27.3
House Range	\$40,500	26.8	Lytle Tanks	\$40,500	26.8
Grand	\$35,750	23.5	Cochran River	\$30,375	20.7
San Juan	\$30,000	20.0	San Juan River	\$22,400	16.1
Escalante	\$2,400	1.8	Cover. of Escalante	\$2,400	1.8
Pony Express	\$1,600	1.0	Canyon River	\$1,600	1.0
San Rafael	\$800	0.5	Price River Ext.	\$1,200	0.8
State	\$800	0.5	Dark Canyon	\$1,200	0.8

# 8. COMPETITIVE RESULTS

Resource Area	Number	Percent	Time	Number	Percent
Pony Express	7	35.0	Dark Salt Flats	8	38.0
House Range	4	20.0	Lytle Extension	7	33.0
Dixie	3	15.0	House Range Ext.	3	15.0
San Juan	3	15.0	San Juan River	3	15.0
Price River	1	5.0	Pony Express Ext.	2	10.0
San Rafael	1	5.0	Lytle Tanks	1	5.0
State	1	5.0	Price River Ext.	1	5.0
			San Rafael Ext.	1	5.0
			Grand Extension	1	5.0



The site information below are based on  
Information System (SINIS) information  
and were site information and other  
information from the SINIS, which are  
sites in Utah. The data is from the  
SINIS which was published for  
the sites. I checked each site.

The following activities of the SINIS  
were used for the SINIS system.

Development Site (SINIS): There are sites in  
Utah, the Land and Water Survey, which  
are not for the SINIS system. The  
data is from the SINIS, which are  
collected, collected, collected, and  
collected.

Land-Development Site (SINIS): The  
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collected, collected, collected, and  
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## APPENDIX E

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SINIS system

APPENDIX E



APPENDIX E  
Developed and Semi-Developed  
BLM Recreation Sites in Utah

The site information below was taken mainly from the 1986 Recreation Management Information System (RMIS) submissions made by the districts. Replacement value and some site information was taken from the FY84 Recreation Prepackage Submission Summary Sheets, which was the last time data was submitted for all sites in Utah. The data in these submissions was also prepared by the districts with some guidance for consistency. Where I had questions about some of the sites, I checked back with the districts.

The following definitions of site types are paraphrased (for clarity) from those used for the RMIS system.

**Developed Site (D):** These are sites meeting all the physical requirements under the Land and Water Conservation Act (LWCF) to be a fee campground, whether or not fees are currently collected. Section 4(b) of LWCF requires that the sites have overnight camp spaces, drinking water, access road, garbage collection, toilet facilities, and fire grates. All of Utah's sites also have tables.

**Semi-Developed Site (SD):** These sites have some of the developed site facilities listed above but lack 1 or more to meet LWCF requirements. In Utah this includes picnic areas (day use), a visitor center, ranger stations, boat ramps (with tables, grates, toilets and/or overnight campsites), overlooks, roadside stops and interpretive sites with facilities.

The sites listed below are listed by district and resource area. Values listed are for replacement of BLM facilities only. They do not (or should not) include values which may be derived from historical or cultural site stabilization (4331). Sometimes a single value is given for all facilities in an RMA. In these cases, the value will appear under the first entry and is not repeated although other facilities in the RMA are included.

<u>Site Name</u>	<u>RMA</u>	<u>Class</u>	<u>Value (\$000)</u>	<u>Type of Site</u>
<u>Salt Lake District</u>				
Pony Express Resource Area				
Simpson Springs	Pony Express Trail	D	100	Campground
Bear River Resource Area				
Birch Creek	Bear River Ext.	SD	5	Picnic Area
Little Creek	Bear River Ext.	SD	-	Roadside Site

# APPENDIX 2 Developed and Semi-Developed SMA Recreation Sites in Utah

The site information below was taken mainly from the 1988 Recreation Management Information System (RMIS) and was made by the District. Replacement value and some site information was taken from the 1988 Recreation Management Information System (RMIS), which was the last data was submitted for all sites in Utah. The data in these submissions was also prepared by the District with some guidance for consistency. Where I had questions about some of the sites, I checked back with the District.

The following definitions of site types are presented (for clarity) from those used for the RMIS system.

**Developed Site (D):** These are sites meeting all the physical requirements under the Land and Water Conservation Act (LWC) to be a fee campground, whether or not fees are currently collected. Section 4(b) of LWC requires that the sites have overnight camp space, existing water, access road, garbage collection, toilet facilities, and fire grates. All of Utah's sites also have a ranger.

**Semi-Developed Site (SD):** These sites have some of the developed site facilities. Sites have one factor 1 or more to meet LWC requirements. In Utah this includes picnic areas, day use, a visitor center, ranger station, boat ramp, toilet facilities, existing water, and/or overnight campspace, overlooks, roadside shops and interpretive signs with facilities.

The other listed sites are listed by district and resource area. Values listed are for replacement by SMA facilities only. They do not (or should not) include values which may be derived from historical or cultural sites. Station (4231). Sometimes a single value is given for all facilities in an SMA. In these cases, the value will appear under the first entry and is not repeated although other facilities in the SMA are included.

Site Name	RMIS	Class	Water (LWC)	Type of Site
<u>Big Lake District</u>				
<u>Long Exposed Resource Area</u>				
Stinson Springs	Long Exposed Trail	2	100	Campground
<u>Boat River Resource Area</u>				
Little Creek	Boat River Ext.	20	2	Public Area
Little Creek	Boat River Ext.	20	-	Recreation Site



### Cedar City District

#### Dixie Resource Area

Red Cliffs	Dixie Extensive	D	200	Campground
Baker Dam	Dixie Extensive	SD	13	Picnic Area

#### Kanab Resource Area

Ponderosa Grove	Moquith Mountain	SD	90	Campground
Whitehouse Trailhead	Paria/Vermillion Cl.	SD	140	Ranger Station
Paria Movie Set	Paria/Hackberry	SD	12	Interp. Site

#### Escalante Resource Area

Calf Creek	Cyns. of Escalante	D	260	Campground
Deer Creek	Cyns. of Escalante	SD	---	Campground
Devils Garden	Escalante Extensive	SD	---	Picnic Area

### Richfield District

#### House Range Resource Area

Floyd Station	Pony Express	SD	2	Interp. Site
Oasis	Little Sahara	D	3,452	Campground
White Sands	Little Sahara	D	-----	Campground
Jericho	Little Sahara	D	-----	Campground
CCC Camp	House Range Ext.	SD	13	Campground

#### Henry Mountain Resource Area

Starr Springs	Henry Mountain Ext.	D	79	Campground
Lonesome Beaver	Henry Mountain Ext.	D	--	Campground
Dandelion Flat	Henry Mountain Ext.	D	--	Campground
McMillian Springs	Henry Mountain Ext.	D	--	Campground
Hog Springs	Henry Mountain Ext.	SD	27	Picnic Area
Airplane Springs	Henry Mountain Ext.	SD	--	Campsite
Halls Overlook*	Henry Mountain Ext.	SD	--	Overlook
Wolverton Wheel	Henry Mountain Ext.	SD	2	Interp. Site

\* NPS maintained

Lebanon City District

Older Resource Area

Water Dam	100	50	50	50
Old City	100	50	50	50
Water Dam	100	50	50	50

Lebanon Resource Area

Water Dam	100	50	50	50
Old City	100	50	50	50
Water Dam	100	50	50	50

Escalante Resource Area

Water Dam	100	50	50	50
Old City	100	50	50	50
Water Dam	100	50	50	50

Richfield District

High Range Resource Area

Water Dam	100	50	50	50
Old City	100	50	50	50
Water Dam	100	50	50	50

Henry Mountain Resource Area

Water Dam	100	50	50	50
Old City	100	50	50	50
Water Dam	100	50	50	50



Moab District

## Price River Resource Area

Sand Wash Station	Desolation Canyon	SD	79	Ranger Station
Nefertiti Ramp	Desolation Canyon	SD	--	Boat Ramp
Swaseys Rapid Ramp	Desolation Canyon	SD	--	Boat Ramp
Cleveland Lloyd D.Q.	Cleveland Lloyd	SD	162	Visitor Center
Price Canyon	Price River Ext.	D	463	Campground
Cedar Mountain	Price River Ext.	SD	33	Picnic Area

## San Rafael Resource Area

San Rafael Bridge	San Rafael Swell	D	46	Campground
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## Grand Resource Area

Fisher Towers	Colorado River	SD	74	Picnic Area
Big Bend	Colorado River	SD	--	Picnic Area
Westwater Station	Colorado River	SD	--	Ranger Station
Windwhistle	Canyon Rims	D	3,541	Campground
Hatch Point	Canyon Rims	D	-----	Campground
Needles Overlook	Canyon Rims	SD	-----	Overlook
Anticline Overlook	Canyon Rims	SD	-----	Overlook
Canyonlands	Canyon Rims	SD	-----	Overlook
JC Park	Grand Extensive	SD	3	Picnic Area

## San Juan Resource Area

Kane Gulch	Grand Gulch	SD	100	Ranger Station
Butler Wash	Grand Gulch	SD	5	Overlook
Mule Canyon	Grand Gulch	SD	62	Interpretive
Sand Island	San Juan River	SD	13	Boat Ramp

Vernal District

## Diamond Mountain Resource Area

John Jarvie Site	Browns Park	SD	120	Interp. Site
Indian Crossing	Browns Park	SD	--	Boat Ramp
Bridge Hollow	Browns Park	SD	--	Boat Ramp
Pelican Lake	Pelican Lake	SD	90	Boat Ramp

## Book Cliffs Resource Area

Musketshot Springs	Book Cliffs Ext.	SD	20	Roadside Site
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Grand District

Price River Resource Area

San Wash Station	20	20	Desolation Canyon	20	Range Station	10
Waterfall Camp	20	20	Desolation Canyon	20	Boat Camp	20
Sweeney's Rapid Camp	20	20	Desolation Canyon	20	Boat Camp	20
Cleveland Ledge 0.0	20	20	Cleveland Ledge	20	Visitor Center	100
Price Canyon	20	20	Price River Est.	20	Campground	20
Center Mountain	20	20	Price River Est.	20	Picnic Area	20

San Rafael Resource Area

San Rafael Bridge	20	20	San Rafael South	20	Campground	20
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Grand Resource Area

Fisher Towers	20	20	Colorado River	20	Eloffs Area	20
Big Bend	20	20	Colorado River	20	Picnic Area	20
Western Station	20	20	Colorado River	20	Range Station	20
Shoshone	20	20	Canyon River	20	Campground	20
Rock Point	20	20	Canyon River	20	Campground	20
Heater's Overlook	20	20	Canyon River	20	Overlook	20
Rocky Mountain	20	20	Canyon River	20	Overlook	20
Campground	20	20	Canyon River	20	Overlook	20
30 Park	20	20	Grand Extensive	20	Picnic Area	20

San Juan Resource Area

Long Gulch	20	20	Green Gulch	20	Range Station	100
Butter Gulch	20	20	Green Gulch	20	Overlook	20
Wolf Canyon	20	20	Green Gulch	20	Interpretive	20
San Juan River	20	20	San Juan River	20	Boat Camp	20

General District

Utah National Monument Resource Area

John Dyer's Site	20	20	Brown Park	20	Interp. Site	100
Indian Cemetery	20	20	Brown Park	20	Boat Camp	20
Bridge Station	20	20	Brown Park	20	Boat Camp	20
Pettan Lake	20	20	Pettan Lake	20	Boat Camp	20

Rock Cliffs Resource Area

Westward Looking	20	20	Rock Cliffs Est.	20	Redstone Site	20
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## REAPPRAISAL OPTIONS FOR UTAH RECREATION FACILITIES

It is evident that facility replacement value could be more consistently estimated across the state. Because this is how we quantify the amount of investment BLM has in physical facilities, it would seem worthwhile to obtain better figures. One of the following approaches might be used to reappraise facility replacement value.

1. Form a working committee from recreation planners, engineers, an economist, and possibly someone with realty appraisal background. No single district or office would dominate the committee, but it should include individuals with substantial facility management experience or familiarity. That committee could finalize the appraisal approach, divide up the sites in the state for appraisal and then review appraisals as a committee when they are completed.
2. A similar committee to the one discussed above could be used to develop the appraisal method and review appraisals, but the appraisals could be done by the districts.
3. An individual could be assigned to develop the appraisal approach, the districts could prepare the appraisals and a committee could review and finalize them.

The appraisal approach would probably include use of the following:

1. Construction cost from contract records
2. Other types of construction cost records
3. Real property records
4. A method for converting construction costs to current dollars
5. Value estimates by type of improvement

As a possible method for converting construction costs to current dollars, a sample printout from a program developed by Bob Milton and Bob Dalla (Moab) is attached.

Also attached are value estimates for various types of recreation improvements. The first listing is the one which was sent out by the state office for estimating the facility values used in this report (1984). The following lists of estimates were obtained from Craig Greene of the Forest Service Design Center. The third list is from Wasatch National Forest and, although a bit outdated, is fairly comprehensive. A sample appraisal format used by Wasatch National Forest is also attached.

RECREATION FACILITIES  
FOR THE STATE OF TEXAS

It is evident that facility replacement value could be more consistently estimated across the state. Because this is how we quantify the amount of investment in physical facilities, it would seem worthwhile to obtain better figures. One of the following approaches might be used to improve facility replacement value.

1. Form a working committee with recreation planners, engineers, an economist, and possibly someone with facility appraisal background. No single district or office would dominate the committee, but it should include individuals with substantial facility management experience or facility appraisal background. The committee could develop the appraisal approach, divide up the state in the state for appraisal and then review appraisals as a committee when they are completed.

2. A similar committee to the one discussed above could be used to develop the appraisal method and review appraisals, but the appraisals could be done by the districts.

3. An individual could be assigned to develop the appraisal approach, the district could prepare the appraisals and a committee could review and finalize them.

The appraisal approach would probably include one of the following:

1. Construction cost for current facility
2. Other type of construction cost index
3. Real property market
4. A method for converting construction costs to current dollars
5. Value estimated by type of improvement

As a possible method for converting construction costs to current dollars, a sample without from a system developed by Bob Wilson and Bob Davis (1984) is attached.

Also attached are value estimates for various types of recreation improvements. The first listing is the one which was sent out by the State Parks Department. The second listing is the one which was sent out by the State Parks Department. The third listing is the one which was sent out by the State Parks Department. The fourth listing is the one which was sent out by the State Parks Department. The fifth listing is the one which was sent out by the State Parks Department. The sixth listing is the one which was sent out by the State Parks Department. The seventh listing is the one which was sent out by the State Parks Department. The eighth listing is the one which was sent out by the State Parks Department. The ninth listing is the one which was sent out by the State Parks Department. The tenth listing is the one which was sent out by the State Parks Department. The eleventh listing is the one which was sent out by the State Parks Department. 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The one hundredth listing is the one which was sent out by the State Parks Department.



UTAH  
REPLACEMENT COST FOR RECREATION FACILITIES  
(US\$, 1984)

Tables

Wood top with concrete support (Wasatch N.F.)		\$700
Concrete form		\$550
Wood top with a pipe frame- Belson Mfgr.		
Unassembled Park Ranger- 8' Complete		\$275
\$141.50 plus labor		
Thomas Mfgr.		\$225
\$93.45 plus labor		

Grills

Char Wood- Belson Mfgr.	\$78.10 plus labor	\$165
Texas Char Wood- Belson Mfgr.	\$247.50 plus labor	\$325
Firegrill Model F-30- Thomas Mfgr.	\$48.06 plus labor	\$125

Firepit

Campfire pit- 20" by 32"- Belson	\$81.40 plus labor	\$185
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Fire Circle

CMP type- 36" by 1'		\$40
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Single Family Unit

Table (Belson Camp Ranger)		
Grill		
Fire circle		
Gravel pad-- 12' by 16' with 8" by 6" timber frame		\$1,456

Single Unit Shelter

\$3,500

# REPLACEMENT COST FOR RECEPTION FACILITIES (1961, 1962)

1274

## Tables

1700	Wood top with concrete support (standard H.V.)
1850	Concrete form
2152	Wood top with a pine frame - Nelson H.V. (standard H.V. Ranger - B. Composite) \$141.00 plus labor
2300	Thomas H.V. \$92.40 plus labor

## Table 1

1162	Car Wood - Nelson H.V.
2250	Teas Car Wood - Nelson H.V.
2152	Fireproof Metal 7-30 - Thomas H.V. \$48.00 plus labor

## Table 2

2152	Carline 1st - 2nd H.V. 25" - Nelson \$81.40 plus labor
------	---

## Table 3

410	Car 1st - 2nd H.V. 1"
-----	-----------------------

## Table 4

2152	Table (standard Car Ranger) B.V. 11 Fire escape Gravel pad - 12" x 16" with 4" x 6" timber frame
------	---

## Table 5

13,000



FACILITY REPLACEMENT COST  
from Craig Greene (USFS)  
(estimates provided by phone)

Tables

Wood and concrete.....	\$600
Concrete cast.....	\$800
Wood and metal.....	\$600

Fire Rings and Grills

30" fire rings.....	\$150
30" fire rings with a swing-on grill.....	\$200
Standing barbeque grills.....	\$150
Texas size standing barbeque grills.....	\$450
Large fire grills with 1/4" steel rings and concrete.....	\$400
Small fire grills with 1/4" steel rings and concrete.....	\$200

Surfacing

Gravel surfacing (4 inches thick).....	\$0.40/sq. ft.
Asphalt paving (3 inches thick).....	\$1.25/sq. ft.

Water Tanks

2000 gallon with valves and installation.....	\$7,000
5000 gallon with valves and installation.....	\$12,000
10,000 gallon with valves and installation.....	\$20,000

Water Systems

Hydrants.....	\$400
1" Valves-installed.....	\$200
2" valves-installed.....	\$250
4" valves-installed.....	\$400
Chlorinators with valves, box and installation.....	\$3,000
Spring developments.....	\$20,000
Misc. fittings and appurtenances.....	\$2-3000
Trenching.....	\$4/ft.
1" PVC pipeline.....	\$1/ft.
2" PVC pipeline.....	\$2/ft.
4" PVC pipeline.....	\$3/ft.
1" metal pipeline.....	\$2.50/ft
2" metal pipeline.....	\$5/ft.
4" metal pipeline.....	\$7.50/ft

Gates

16 foot heavy duty steel.....	\$1,700
25 foot heavy duty steel.....	\$2,500
30 foot heavy duty steel.....	\$3,000

**FACILITY REPLACEMENT COST**  
 (See City Ordinance 10272)  
 (Estimate provided by owner)

Table

Wood and concrete	1400
Concrete cost	1800
Wood and metal	1800

Fire Ring and Grille

30" fire ring	1150
30" fire ring with a swing-on grille	1200
Standard bathroom grille	1100
Teas also standard bathroom grille	1100
Large fire grille with 1/2" steel rings and concrete	1400
Small fire grille with 1/4" steel rings and concrete	1200

Water

Gravel covering (4 inches thick)	60.00
Asphalt paving (2 inches thick)	11.50

Water Tank

10,000 gallon with valves and installation	10,000
5,000 gallon with valves and installation	5,000
2,000 gallon with valves and installation	2,000

Water System

Hydrant	1400
1" valves-installed	2500
2" valves-installed	2500
4" valves-installed	4000
6" valves-installed	6000
Ordnance with valves, box and installation	20,000
Spring development	250,000
Water, fixtures and appliances	25,000
Trunking	14,000
10" PVC pipe	21,000
2" PVC pipe	25,000
4" PVC pipe	25,000
6" PVC pipe	25,000
1" water pipe	25,000
2" water pipe	25,000
4" water pipe	25,000

Water

15 foot heavy duty steel	21,000
25 foot heavy duty steel	25,000
35 foot heavy duty steel	25,000



Vault Toilets\*

Single unit-- precast concrete.....	\$8,500
2 Unit-- wood construction (small).....	\$12,000
2 Unit-- brick with covered entry & service room.....	\$20,000
4 Unit-- brick with covered entry & service room.....	\$30,000
6 Unit-- brick with covered entry & service room.....	\$40,000

\*For composting toilets add about \$6,000 for every 2 units

Barriers

Concrete wheel stops.....	\$50
Rock barriers.....	\$40
14 ft. wood rail with concrete posts.....	\$135

Signing

Bulletin board type.....	\$500
Small routed redwood.....	\$150
Recreation area entrance sign.....	\$500
Government furnished signs- installed.....	\$75

Overlooks

A simple 14' by 14' site with railings.....	\$4,000
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## FOREWORD

This booklet has been prepared to fill the needs of conceptual type estimates (Class C) and long range budgetary problems.

There are many considerations required to utilize a "rule of thumb" estimating booklet such as remoteness of job location, material suppliers, labor availability and wage rates, season of construction, geographic areas and difficulty of terrain.

If there are questions relating to the items or cost figures in this booklet, feel free to call the estimating section, 234-4556, in Denver, Colorado. Contributors to this booklet are: Ramon Borrás, Amos C. Williams, Richard D. McNulty and Lucy M. Guy, all part of the Branch of Estimating for the National Park Service, located at the Denver Service Center, Professional Support Division, P. O. Box 25287, Denver, Colorado 80225.





ROADWAY (CONTINUED)

Road obliteration (asphalt & base)	\$4/sq. yd.
Road obliteration and restoration	6/sq. yd.
Cattle Guard w/concrete well 36' wide	8,000/each
Cattle Guard w/concrete well 24' wide	6,000/each
Resurface roads (site preparation, tack coat, 2" mat, seal and chip)	8/sq. yd.
Road - asphalt	300,000/mile (average conditions)
Road - gravel surface	100,000/mile/\$14/sq. yd.
Bridge - concrete	80/sq. ft.
Trail (surface 6' wide)	30,000/mile
Trail (surface 8' wide)	40,000/mile
Trail, gravel (4")	5/sq. yd.
Wood chip (2")	5/sq. yd.
Asphalt trail	12/sq. yd.
Oyster shell trail	15/sq. yd.
Nature trail	14,000/mile
Foot trail	10,000/mile
Trace	10,000/mile
History trail	25,000/mile
Bike trail (10' wide)	50,000/mile
Horse trail	18,000/mile
Trail signs	250/each
Information markers	250/each
Bulletin Board	500/each





## ROADWAY

Clearing & Grubbing	Sparse--\$1,000 to Heavy--\$6,000 acre
Unclassified Excavation	\$8.00/cu. yd.
Structural Excavation	25/cu. yd.
Subgrade Preparation	2/sq. yd.
Watering	10/Unit
Base Grading, Complete	4/sq. yd.
Site Preparation	2/sq. yd.
Imported Borrow (10-12 mile haul)	10/cu. yd.
Base Course (6")	3/sq. yd.--\$14/ton
Prime Asphalt	200/ton
2" Asphalt Mat	40/ton -- \$4/sq. yd.
Asphalt Cement for Plant Mix	170/ton
Seal Asphalt	250/ton
Rubberized Asphalt	325/ton
Chips	36/ton
Information Signs (small)	100/each
Directional Signs	150/each
Guard Rail	14/lin. ft.
Cribbing (wood)	12/sq. ft.
Cribbing (metal)	18/sq. ft.
Cribbing (concrete)	22/sq. ft.
Base Course - Haul	0.20/ton-mile 0.15/cu. yd.-mile





ROADWAY (CONTINUED)

Striping	\$0.40/lin. ft.
Asphalt Curb	6/lin. ft.
Chip and Seal (22' width)	\$18,000/mile or \$1.50/sq. yd.
Board Walks (on grade)	\$4/sq. ft.
Board Walks (elevated)	20/sq. ft.
Hand Rails (metal)	20/lin. ft.
Hand Rails (wooden)	12/lin. ft.
Bridge Railing	40/lin. ft.
Parking Barriers (timber) 8'	15/each
Parking Barriers (concrete) 8'	50/each
Riprap (loose)	30/cu. yd.
(hand laid)	30/sq. yd.
(grouted)	75/cu. yd.
Paved Ditch (asphalt)	10/lin. ft.
Parking Areas (small-25 cars)	\$1,200/per car
(25 to 50 cars)	1,100/per car
(50 cars to 200)	1,000/per car
(200 cars & over)	900/per car
(Car & Trailer Combination)	2,000/space
(Bus)	3,000/space
Stabilized Turf	700/space
12" CMP	20/lin. ft.
12" CMP End Sections	100/each
18" CMP	22/lin. ft.





ROADWAY (CONTINUED)

18" CMP End Sections	\$125/each
24" CMP	24/lin. ft.
24" CMP End Sections	125/each
30" CMP	30/lin. ft.
8" CMP	16/lin. ft.
8" End Section	90/each
30" CMP End Sections	175/each
36" CMP (Corrugated Metal Pipe)	35/lin. ft.
36" CMP End Sections	250/each
42" CMP	40/lin. ft.
42" CMP End Sections	350/each
48" CMP	55/lin. ft.
48" CMP End Sections	500/each
60" CMP	90/lin. ft.
60" CMP End Sections	700/each
72" CMP	100/lin. ft.
80" CMP	175/lin. ft.

ROADWAY (CONTINUED)

18" CP End Section	\$125/each
14" CP	20/110. 42.
14" CP End Section	125/each
10" CP	20/110. 42.
8" CP	10/110. 42.
6" End Section	20/each
30" CP End Section	125/each
30" CP (Corrugated Metal Pipe)	22/110. 42.
30" CP End Section	125/each
42" CP	40/110. 42.
42" CP End Section	200/each
48" CP	10/110. 42.
48" CP End Section	200/each
60" CP	20/110. 42.
60" CP End Section	200/each
72" CP	100/110. 42.
84" CP	125/110. 42.



## CONCRETE ITEMS

Concrete curbing	\$9/lin. ft.
Slate curbing	30/lin. ft.
Granite Curbing	10/lin. ft.
Concrete curb & gutter	10/lin. ft.
Concrete sidewalk (4") with base (4")	25/sq. yd.
Colored concrete sidewalk	30/sq. yd.
Concrete drop inlet	1,000/each
Concrete footbridge (small - 8' wide)	90/sq. ft.
Concrete road bridge	80/sq. ft.
Concrete paving 6" reinforced	35/sq. yd.
Concrete walls	400/cu. yd.
Concrete steps (4' - 6')	400/lin. ft.
Concrete parking barrier 6'	50/each
Concrete boat ramp	40/sq. yd.
Remove concrete slab - 4"	5/sq. yd.
Concrete footings	200/cu. yd.

CONCRETE TYPE

28/Jan. 12.	Concrete coping
29/Jan. 12.	Stone coping
30/Jan. 12.	Concrete coping
30/Jan. 12.	Concrete curb & gutter
31/Jan. 12.	Concrete sidewalk (12" wide base 12")
1/Feb. 12.	Colored concrete sidewalk
1,000/Jan. 12.	Concrete deep water
20/Jan. 12.	Concrete footbridge (small - 8' wide)
20/Jan. 12.	Concrete road bridge
22/Jan. 12.	Concrete paving 6" sidewalk
20/Jan. 12.	Concrete walls
20/Jan. 12.	Concrete steps 4' - 5'
20/Jan. 12.	Concrete parking barrier
20/Jan. 12.	Concrete base step
20/Jan. 12.	Concrete concrete slab - 4"
20/Jan. 12.	Concrete footings



## WATER SYSTEM ITEMS

Underground Concrete Water Storage Reservoir:	10,000 gal.	\$14,000/each
	20,000 gal.	25,000/each
	30,000 gal.	35,000/each
	50,000 gal.	50,000/each
	100,000 gal.	90,000/each
	200,000 gal.	150,000/each
	500,000 gal.	200,000/each
	1,000,000 gal.	300,000/each
	2,000,000 gal.	500,000/each

Steel Water Storage Reservoir:	10,000 gal.	14,000/each
	20,000 gal.	25,000/each
	50,000 gal.	50,000/each
	100,000 gal.	100,000/each
	200,000 gal.	150,000/each
	500,000 gal.	200,000/each
	1,000,000 gal.	300,000/each
	2,000,000 gal.	500,000/each

Elevated Steel H <sub>2</sub> O Storage Tank:	10,000 gal.	80,000/each
	20,000 gal.	100,000/each
	30,000 gal.	110,000/each
	40,000 gal.	118,000/each
	50,000 gal.	125,000/each

Steel Water Tank (clean & paint)	Outside	\$0.90/sq. ft.
	Inside	\$1.00/sq. ft.
Drill well 4" - 6" - 8" diameter w/casing & testing		\$30/lin. ft.

" " 10" diameter w/casing & testing	40/lin. ft.
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" " 12" " " " "	60/lin. ft.
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" " 16" " " " "	80/lin. ft.
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Well Electrical Cable	2/lin. ft.
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Sand Blasting	1/sq. ft.
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Sand Blasting and painting	1.50/sq. ft.
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Pump House 10' x 10' and equipment	20,000/each
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Pump House masonry	70/sq. ft.
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WATER SYSTEM ITEMS (CONTINUED)

Chlorinator	\$1,000/each
Chlorinator, Pump and Building equipped	\$30,000/each or \$120/sq. ft.
Drinking fountain (park type)	1,500/each
Drinking fountain (camp type)	1,000/each
6" fire hydrant with valves and connections	1,400/each
Firehose cabinets	3,000/each
3/4" galvanized steel pipe	7/lin. ft.
1" galvanized steel pipe	8/lin. ft.
1-1/2" galvanized steel pipe	9/lin. ft.
2" galvanized steel pipe	10/lin. ft.
2-1/2" galvanized steel pipe	12/lin. ft.
3" galvanized steel pipe	14/lin. ft.
4" C.I. pipe (cast iron)	14/lin. ft.
6" C.I. pipe	18/lin. ft.
8" C.I. pipe	21/lin. ft.
10" C.I. pipe.	24/lin. ft.
12" C.I. pipe	26/lin. ft.
4" A.C. pipe (asbestos cement)	9/lin. ft.
6" A.C. pipe	12/lin. ft.
8" A.C. pipe	14/lin. ft.
10" A.C. pipe	15/lin. ft.

# WATER SYSTEM ITEMS (CONTINUED)

Chlorinator	\$1,000/each
Chlorinator, Pump and Building equipped	\$25,000/each or \$120/100 ft.
Existing fountain (concrete type)	\$1,500/each
Existing fountain (steel type)	\$1,000/each
6" line support with valves and connections	\$1,400/each
Pressure cast iron	\$2,000/each
3/4" galvanized steel pipe	75/100 ft.
1" galvanized steel pipe	85/100 ft.
1-1/2" galvanized steel pipe	95/100 ft.
2" galvanized steel pipe	105/100 ft.
3-1/2" galvanized steel pipe	125/100 ft.
4" galvanized steel pipe	145/100 ft.
6" C.I. pipe (cast iron)	155/100 ft.
8" C.I. pipe	165/100 ft.
10" C.I. pipe	185/100 ft.
12" C.I. pipe	215/100 ft.
14" C.I. pipe	245/100 ft.
16" C.I. pipe	265/100 ft.
18" C.I. pipe	285/100 ft.
20" C.I. pipe	305/100 ft.
22" C.I. pipe	325/100 ft.
24" C.I. pipe	345/100 ft.
26" C.I. pipe	365/100 ft.
28" C.I. pipe	385/100 ft.
30" C.I. pipe	405/100 ft.



WATER SYSTEM ITEMS (CONTINUED)

4" Ductile Iron Pipe	\$14/lin. ft.
6" " " "	20/lin. ft.
8" " " "	26/lin. ft.
1" P.V.C. (Poly Vinyl Chloride)	6/lin. ft.
2" P.V.C.	7/lin. ft.
3" P.V.C.	8/lin. ft.
4" P.V.C.	9/lin. ft.
6" P.V.C.	12/lin. ft.
8" P.V.C.	14/lin. ft.
1" Gate Valves w/box	125/each
2" " " "	200/each
3" " " "	300/each
4" " " "	400/each
6" " " "	650/each
8" " " "	800/each
2" Back Flow Preventers	1,500/each
3" " " "	2,000/each
4" " " "	3,000/each
6" " " "	4,000/each
Air Release Valve (1" - 2")	1,000/each
Curb Stops - 1"	300/each
6" Plug valve w/box	650/each
8" " " "	800/each

WATER SYSTEM ITEMS (CONTINUED)

4" Flexible Iron Pipe	\$14/lin. ft.
6" " "	20/lin. ft.
8" " "	30/lin. ft.
1" P.V.C. (Poly Vinyl Chloride)	4/lin. ft.
2" P.V.C.	7/lin. ft.
3" P.V.C.	8/lin. ft.
4" P.V.C.	9/lin. ft.
6" P.V.C.	12/lin. ft.
8" P.V.C.	16/lin. ft.
1" Gate Valves w/box	125/each
2" " "	200/each
3" " "	300/each
4" " "	400/each
6" " "	650/each
8" " "	800/each
1" Ball Valve w/box	1,200/each
2" " "	2,000/each
3" " "	3,000/each
4" " "	4,000/each
6" " "	7,000/each
8" " "	10,000/each
1" Air Release Valve (1" - 2")	300/each
2" " "	450/each
3" " "	600/each
4" " "	750/each
6" " "	1,000/each
8" " "	1,200/each



WATER SYSTEM ITEMS (CONTINUED)

Water Meter & Box:

3/4" meter and box	\$200/each
1" " " "	\$400/each
2" " " "	\$650/each
4" " " "	\$2,500/each
6" " " "	\$4,800/each
8" " " "	\$7,500/each

SEWAGE SYSTEMS

WASTEWATER TREATMENT (AERATION):

1,000 gallons per day	\$40,000
5,000 " " "	70,000
10,000 " " "	150,000
20,000 " " "	300,000
25,000 " " "	380,000
35,000 " " "	425,000
50,000 " " "	800,000
75,000 " " "	900,000
100,000 " " "	1,100,000
130,000 " " "	1,300,000
500,000 " " "	1,700,000
1,000,000 " " "	3,500,000





## SEWAGE SYSTEMS (CONTINUED)

### WASTEWATER TREATMENT (PHYSICAL CHEMICAL):

15,000 Gallons Per Day	\$450,000
25,000   "       "   "	600,000
50,000   "       "   "	800,000
100,000   "       "   "	1,500,000
Sewage Lagoons	40,000 per acre complete
Sewage lift station (hydropneumatic w/wet well & dual pumps)-large system	45,000/each
single residence	3,000/each
Sanitary dump station - \$20,000/each to	35,000/each including roads, signs
Floating sanitary dump station with pumps	40,000/each
Septic tank, field and lines	15,000/each
Septic tank - 1,000 gallon	2,500/each
"       "   - 2,000   "	4,000/each
"       "   - 3,000   "	5,000/each
"       "   - 4,000   "	7,000/each
"       "   - 5,000   "	9,000/each
"       "   - 8,000   "	12,000/each
"       "   -10,000   "	18,000/each
Sewage Package Treatment Plant (small)	20,000/each
Absorption Trench	10/lin. ft. complete
Leaching field	10/sq. ft.
Sand filter bed	12/sq. ft.

SEWAGE SYSTEMS (CONTINUED)

WASTEWATER TREATMENT (PHYSICAL CHEMICALS)

12,000 Gallons per day	100,000	"	"	"	1,300,000
"	20,000	"	"	"	500,000
"	30,000	"	"	"	600,000
"	40,000	"	"	"	850,000

Seepage Lagoons

Seepage lift station (hydraulic w/air)  
with 2 dual pumps - large system  
single residence

Secondary pump station - \$10,000 each in

Floating secondary pump station with pump

Septic tank, 1200 and 1500

Septic tank - 1200 gallon

" - 1,000

" - 1,000

" - 1,000

" - 1,000

" - 1,000

" - 1,000

Seepage Package Treatment Plant (small)

Absorption trench

Leaching field

Best filter bed

40,000 per acre complete

40,000 each

3,000 each

30,000 each including

roads, signs

20,000 each

15,000 each

5,000 each

4,000 each

3,000 each

1,000 each

1,000 each

12,000 each

15,000 each

20,000 each

10,000 - 15,000

10,000 - 15,000

12,000 - 15,000



SEWAGE SYSTEMS (CONTINUED)

Sewage distribution box	\$1,000/each
Standard manhole 4' wide	1,000/each
Drop manhole	1,200/each
Extra depths for manhole	125/lin. ft.
6" cleanout	300/lin. ft.
4" vitrified clay pipe	10/lin. ft.
6"     "     "     "	14/lin. ft.
8"     "     "     "	16/lin. ft.
10"    "     "     "	19/lin. ft.
12"    "     "     "	20/lin. ft.
4" force main	12/lin. ft.
T.V. pipe inspection	1/lin. ft.
Clean sewer pipe	1/lin. ft.
Plastic liner pipe	8/and up per lin. ft.
4" ductile iron sewer	15/lin. ft.
6"     "     "     "	21/lin. ft.
8"     "     "     "	28/lin. ft.
10"    "     "     "	30/lin. ft.
12"    "     "     "	33/lin. ft.
16"    "     "     "	40/lin. ft.
Pit toilet, vault type - concrete vault	17,000/each    2 unit was 36,000    unit Block
Pit toilet with pit	52,000/each





### SEWER SYSTEMS (CONTINUED)

Chemical toilet (monomatic, plastic) portable	\$2,500/each
Oil recirculating toilet system, (1,000 gal. tank and four toilets)	13,000/each
Treatment plant	\$12 - \$15/gallon
Flow metering system (Catocfin)	\$6,000/each

### WRAPPED BLACK IRON PIPE

3/4"	\$5/lin. ft.
1"	5.50/lin. ft.
1-1/4"	6/lin. ft.
1-1/2"	6.50/lin. ft.
2"	7/lin. ft.
2-1/2"	8/lin. ft.
3"	9/lin. ft.
4"	12/lin. ft.
Gas meter and regulator	250/lin. ft.

### L.P. GAS

500 gallon L.P. tank	\$700/each
1,000    "    "    "	1,600/each
2,000    "    "    "	3,000/each

SEWER SYSTEM (CONTINUED)

42,500/each	Chemical toilet (sanitary, plastic) portable
12,500/each	Oil retreating toilet system, (1,000 gal. tank and pump toilet)
412 - 512/each	Treatment plant
40,000/each	Flow metering system (sanitary)

WATER MAIN LINE TYPE

42,500/each	3/4"
42,500/each	1"
42,500/each	1-1/4"
42,500/each	1-1/2"
42,500/each	2"
42,500/each	2-1/2"
42,500/each	3"
42,500/each	4"
42,500/each	Gas meter and regulator

L.V. GAS

42,500/each	200 gallon L.V. tank
42,500/each	" " "
42,500/each	" " "



## NATURAL GAS

400 cubic feet or less	\$2.75/cu. ft.
Next 600 cubic feet	0.15/cu. ft.
Next 6,000 cubic feet	0.08/cu. ft.
" 12,000 cubic feet	0.07/cu. ft.

## FENCE

Rail (3)	\$8/lin. ft.
Rail (2)	6/lin. ft.
4-strand barbed wire with steel posts	4/lin. ft.
Bison-proof fence, woven wire 7' with steel post	12/lin. ft.
Picket fence	\$4/to \$8/lin. ft.
Woven wire 3' - 0" with steel post and 3-strand barbed wire	\$5/lin. ft.
Woven wire 4' with steel post and 2-strand barbed wire	6/lin. ft.
Woven wire 6' - 0" with steel post and 3-strand barbed wire	7/lin. ft.
Chainlink 42"	7/lin. ft.
Chainlink 6' - 0" with 3-strand barbed wire	14/lin. ft.
Gates 16' wide	700/each
Chainlink 12' - 0" with 3-strand barbed wire	22/lin. ft.
Screen board 8' high	8/lin. ft.
Screening - colored lath	3/lin. ft.
Snow fence	2/lin. ft.
Bridge railing	40/lin. ft.

# NATURAL GAS

\$2.75/cu. ft.	400 cubic feet or less
0.25/cu. ft.	More than 400 cubic feet
0.05/cu. ft.	More than 4,000 cubic feet
0.07/cu. ft.	" 12,500 cubic feet

## WATER

\$8.11/cu. ft.	Well (C)
6.11/cu. ft.	Well (D)
4.11/cu. ft.	4-stand barbed wire with steel posts
12.11/cu. ft.	Black-pine fence, woven wire 7"
20.11/cu. ft.	Black-pine fence, woven wire 7"
\$2.11/cu. ft.	Black-pine fence, woven wire 7"
8.11/cu. ft.	Black-pine fence, woven wire 7"
7.11/cu. ft.	Black-pine fence, woven wire 7"
7.11/cu. ft.	Black-pine fence, woven wire 7"
14.11/cu. ft.	Black-pine fence, woven wire 7"
100' wire	Black-pine fence, woven wire 7"
12.11/cu. ft.	Black-pine fence, woven wire 7"
8.11/cu. ft.	Black-pine fence, woven wire 7"
3.11/cu. ft.	Black-pine fence, woven wire 7"
3.11/cu. ft.	Black-pine fence, woven wire 7"
40.11/cu. ft.	Black-pine fence, woven wire 7"



## ELECTRICAL

Electrical power, underground	\$10/lin. ft.
Electrical power-overhead (to be removed)	2/lin. ft.
Parking lot lighting 40' pole every 300 feet	1,000 per pole
Trail lighting 6' pole every 50 feet	300 per pole
Pull boxes (large)	800 each
Generator Sets (Diesel) with accessories:	
30 kW	\$7,000
50 kW	11,000
75 kW	17,000
100 kW	21,000
125 kW	25,000
150 kW	31,000
175 kW	35,000
200 kW	40,000
250 kW	44,000
300 kW	52,000
350 kW	60,000
400 kW	66,000
500 kW	81,000
69 kv powerline (40' poles)	35,000/mile
Relocate 69 kv powerline	25,000/mile
10 kW generator and shelter	12,000/each

# ELECTRICAL

Electrical power, underground  
 Electrical power-overhead (to be removed)  
 Poles for lighting 50' poles every 300 feet  
 Trail lighting 5' poles every 50 feet  
 Pole bases (large)  
 Generator sets (Olson) with accessories

20 kw	27,000
50 kw	21,000
75 kw	17,000
100 kw	14,000
125 kw	12,000
150 kw	11,000
175 kw	10,000
200 kw	9,000
225 kw	8,000
250 kw	7,000
275 kw	6,000
300 kw	5,000
325 kw	4,000
350 kw	3,000
375 kw	2,000
400 kw	1,000
425 kw	1,000
450 kw	1,000
475 kw	1,000
500 kw	1,000
525 kw	1,000
550 kw	1,000
575 kw	1,000
600 kw	1,000
625 kw	1,000
650 kw	1,000
675 kw	1,000
700 kw	1,000
725 kw	1,000
750 kw	1,000
775 kw	1,000
800 kw	1,000
825 kw	1,000
850 kw	1,000
875 kw	1,000
900 kw	1,000
925 kw	1,000
950 kw	1,000
975 kw	1,000
1,000 kw	1,000



## BUILDINGS

Residence - Standard 3-bedroom (1,300 sq. ft.)	\$45,000/each
Attached garage	6,000/each
Solar heat with back-up system	9,000 for standard house
Duplex - 2 bedroom each	64,000/each duplex
Quadraplex - 2 bedroom each	28,000/each quad
Apartment	25,000/each
Corral	10,000/acre
Stable (2 stalls)	15,000/each
Trailer Court with utilities	8,000/unit
Kiosk	15,000/each
Visitor Center	110/sq. ft.
Administration Building	80/sq. ft.
Ranger Station	60/sq. ft.
Maintenance Building	50/sq. ft.
Storage building	40/sq. ft.
Contact Station - 700 sq. ft.	60/sq. ft.
Ranger and Contact Station	42,000/lump sum
Comfort stations (standard) 400 sq. ft.	45,000/each
Picnic shelters (group)	25/sq. ft.
Adirondack shelters	45,000/each

BUILDINGS

Residence - Standard 1-Bedroom  
(1,300 sq. ft.)

Attached garage

Garage built with matching system

Apartment - 2 bedrooms each

Studio - 1 bedroom each

Apartment

Garage

Studio (1 unit)

Trailer Court with utilities

Kitchen

Trailer Court

Administrative Building

Garage Building

Maintenance Building

Storage Building

Contract Station - 100 sq. ft.

Garage and Contract Station

Contract Station (Standard) 100 sq. ft.

Electric Station (200 sq. ft.)

Administrative Building

\$42,000/each

\$6,000/each

\$2,000 for standard house

\$6,000/each duplex

\$8,000/each quad

\$2,000/each

\$8,000/each

\$2,000/each

\$6,000/each

\$2,000/each

\$100/sq. ft.

\$50/sq. ft.

\$50/sq. ft.

\$50/sq. ft.

\$50/sq. ft.

\$50/sq. ft.

\$2,000/each

\$2,000/each

\$2,000/each

\$2,000/each



BUILDINGS (CONTINUED)

Fish Cleaning Station	\$10,000/single 14,000/double
Amphitheater	500/seat
House Trailer delivered	12,000/each
Metal Buildings (shell) foundations extra	10/sq. ft.
Shower and laundry	70/sq. ft.
Air-Condition house	2.50/sq. ft.
Air-Condition Visitor Center	\$2,400/ton/200 sq. ft. or \$12/sq. ft.
Commercial Heating	\$4/sq. ft.
Fire Alarm (detection)	1/sq. ft.
Fire detection & protection (Halon)	2/cu. ft.
Fire Sprinkler system	1.50/sq. ft.
Burglar Alarm	2/sq. ft.
Apartments	45/sq. ft.
"    - furnishings-efficiency (400 sq. ft.)	2,000/unit
"            "            1 bedroom (700 sq. ft.)	2,600/unit
"            "            2 bedroom (900 sq. ft.)	3,300/unit
"            "            3 bedroom (1,100 sq. ft.)	4,000/unit
For dining room add	1,000/unit
Site restoration after building removal	5/sq. yd.
Building demolition	0.20/cu. ft.





## BUILDINGS (CONTINUED)

Residential appliances and accessories:  
washing machine, dryer, refrigerator,  
range, curtain rods, storm doors,  
storm windows and screens

\$3,000/each residence

Storm door/Windows

1,500/residence

Roofing Replacement

Built-Up (T & G)

300/square

Visitor Center furnishing

10% to 15% V.C. costs

First Aid Room furnishing

1,000/unit

Contact Station furnishing

7,000/unit

Solar Heating and Cooling System

50/sq. ft. of Building

Solar Heating and Cooling Panels

150/sq. ft.

## INCINERATORS

90 lbs./hr	\$20,000
185 " "	25,000
340 " "	30,000
505 " "	60,000
600 " "	75,000
1,050 " "	95,000
1,420 " "	115,000

Inventory

Essential appliances and accessories:  
washing machine, stove, refrigerator,  
range, curtain rods, storm doors,  
storm windows and screens

12,000/each residence

1,500/residence

Storm door/windows

Heating Equipment  
Bulb-up (1 & 2)

100/residence

100 to 125 V.C. units

Plastic Carpet Linoleum

1,500/units

Plastic and wood furniture

1,000/units

Contract Electric Wiring

20/eq. ft. of wiring

Solar Heating and Cooling System

100/eq. ft.

Solar Heating and Cooling Panels

Inventory

20 lbs. per

40,000

100 "

10,000

100 "

10,000

100 "

60,000

100 "

10,000

1,000 "

10,000

1,000 "

11,000



MISCELLANEOUS ITEMS (CONTINUED)

Beach sand	\$12/cu. yd.
Benches (6'-8') wood	800/each
Benches (6'-8') concrete	1,000/each
Floating boat dock	40/sq. ft.
Boat Dock - small	30/sq. ft.
" " - large (25' boat, use \$3,300/boat)	25/sq. ft.
Gas Pump & Storage Tank, Island	9,000/each
Utility Connections (100 lin. ft.)	1,200/each
Brick Wall	6/sq. ft.
Stone Wall	300/cu. yd.
Clothesline	125/each
Rubble removal	7/ton
Tree removal	100/tree
Golf course	28,000/hole
Park Boat - 40 lin. ft.	60,000/each
Tour Boat - 65' long and 20' beam (150 persons)	300,000/each
Civil War Field Pieces:	
Cannons	13,000/each
Carriages (White Oak)	9,000/each
Log Replacement (6"-20" diameter)	30/lin. ft.

USDA BLM  
BRYAN  
BRYAN

JAN 23 '67

SRL

River

MISCELLANEOUS ITEMS (CONTINUED)

Black sand	812/ton. 74.
Reinforcing (6'-8") steel	800/each
Reinforcing (6'-8") concrete	1,000/each
Reinforcing post, black	40/each. 54.
Reinforcing post - small	30/each. 12.
" " - large	25/each. 12.
(25) Reinforcing, steel (100/each)	
Gas pump & storage tank, Island	2,000/each
Utility Communication (100 ft. 12.)	1,200/each
Brick wall	6/each. 12.
Stone wall	200/each. 74.
Clothesline	125/each
Knobles (round)	1/each
Tree (round)	100/each
Field course	20,000/each
Field zone - 10 ft. 12.	20,000/each
Four zone - 12' long and 10' wide (100 ft. 12.)	200,000/each
Civil War Field Trip:	
Common	25,000/each
Carriage (Horse 002)	2,000/each
Log Reclamation (6'-10" diameter)	30/each. 12.



## LANDSCAPING

Residence	\$2,000 lump sum
Trailer	400 lump sum
Apartment/Unit	700 lump sum
Visitor Center	10% of Net Construction Cost
Topsoil	\$11/cu. yd.
Seeding, Fertilizer and mulch	80/unit/1000 sq. ft.
Seeding, trees and shrubs	6,000/acre
Sprigging Bermuda Grass	100 per unit of 1,000 sq. ft.
Topsoil and sod	5/sq. yd.
Trees (small)	200/each
Shrubs (small)	.75/each
Sprinkler System, 30 heads/acre	135/head or \$4,000/acre
Sprinkler System, small lawns	0.35/sq. ft.
Residential driveway and sidewalk	1,500/each
Trail Clearing (maintenance)	150/mile

## MISCELLANEOUS ITEMS

Flag poles	\$2,000/each
Lifeguard stands	500/each
Diving floats and safety devices	3,000/each
Entrance signs (major)	8,000/each
Entrance signs (small)	4,000/each





RECREATION CAPITAL INVESTMENT  
FY 1987 PROJECT COST ESTIMATE

PROJECT NAME: \_\_\_\_\_

ITEM	QUANTITY	UNIT COST	TOTAL COST
------	----------	-----------	------------

Buildings

Toilet (Double Unit/Hdcap.)		12,000	
Shelter (Wood or Metal)		20/sq.ft.	
Entrance Station (2 person)		28,000	
Fish Cleaning Station		8,000	
Subtotal:			

Fences

Split Rail (2 rail)		2.00/ft.	
Corral (Steel Post/wood rails)		5.60/ft.	
Hitching Post (Steel pipe)		300	
Subtotal:			

Furniture

Unit Munber (Carsonite post)		20	
Table (Wood/concrete base)		375	
Firering (Steel)		200	
Dumpster		275	
Dumpster Pad		150	
Garbage Can		60	
Subtotal:			

Landscaping

Rehabilitation		2,500/acre	
Tree Transplants		50/tree	
Shrub Transplants		35/shrub	
Subtotal:			

Roads

New Construction (D gravel)		5.68/lin.ft.	
Barrier Posts (Wood)		1/lin.ft.	
Resurfacing (D gravel)		12/ton	
Resurfacing (Chip and seal)		3.38/sq.yd.	
Camping Spur (600 sq.ft.)		850	
Tent Pads (100 sq.ft.)		200	
Parking Space (300 sq.ft.)		450	
Bumper stops (Wood/cone)		60	
Concrete Curb		22/lin.ft.	
Gates (12 ft.)		1500	
Boat Launch (small)		2500	
Subtotal			





### Signs

Entrance	500
Internal	75
Bulletin Board	300
Fee Station	500
Subtotal:	

### Utilities

Wells	10,000
Dump Station	5,000
Trenching (12"-18")	5/lin.ft.
Trenching (36"-60")	22/lin.ft.
Other	
Subtotal:	

### Walkways

New Construction	4/lin.ft.
Foot Bridges (30 ft.)	10,000
Steps (RR tie)	25/step
Subtotal:	

### Walls

RR tie/deadmen (treated)	17/sq.ft.
Stone/mortar (48" high)	100/lin.ft.
Concrete/Stone veneer (48" high)	150/lin.ft.
Horse Ramp	1000
Subtotal:	

### Other

Subtotal:	

ESTIMATED PROJECT COST:

=====

STATION

Station	100
Interval	10
Adjusted Station	100
Low Station	100
Sea Level	

WATER

Water	10.000
Sea Level	10.000
Interval (100-100)	10.000
Interval (100-100)	10.000
Interval	
Interval	

WATER

Water	10.000
Sea Level	10.000
Interval (100-100)	10.000
Interval	
Interval	

WATER

Water	10.000
Sea Level	10.000
Interval (100-100)	10.000
Interval	
Interval	

WATER

Water	10.000
Sea Level	10.000
Interval (100-100)	10.000
Interval	
Interval	

ESTIMATE LOWEST

STATION



MESSAGE SCAN

TO L.BARON:R04F19A

From: DICK OSTERGAARD:R02F13A  
Postmark: Oct 21,86 1:31 PM  
Status: Certified  
Subject: CAPITAL INVESTMENTS/COST ESTIMATES

-----  
Comments:

LEE..RECIEVED THIS FROM TH WHITE RIVER BUT THOUGHT IT MAY BE OF  
INTEREST TO YOU. IF YOU DO HAVE ANY COSTS THAT ARE MORE ACCURATE  
PLEASE FILL THEM IN AND SEND THEM BACK VIA THE D.G.TO ME ASAP. THANX.

-DICK

-----X-----

TO : L. E. BROWN, JR.

FROM : JOHN D. BROWN, JR.  
SUBJECT: CAPITAL INVESTMENT COST ESTIMATES  
CLASS: Confirmed  
DATE: Oct 21, 55  
TIME: 1:31 PM

RECEIVED THIS FROM THE WHITE HOUSE FOR THE RECORD IT MAY BE OF  
INTEREST TO YOU. IF YOU DO HAVE ANY COMMENTS THAT ARE WORTH  
RECORDING PLEASE FILL THEM IN AND SEND THEM BACK VIA THE A.C. TO ME EARLY. THANK  
-DICK



Bob Salin

From: Bob Milton

Subject: Producer Price Index

Producer price indexes are prepared by month and year. The yearly index represents a 12 month index average. These indexes are available by commodity grouping which include:

- farm products
- processed foods
- textiles
- hides and related products
- fuels
- chemical products
- plastic products
- wood products
- pulp and paper products
- metal products
- machinery and equipment
- furniture and household durables
- nonmetallic mineral products
- transportation equipment
- miscellaneous products

For simplicity I recommend using a producer price composite index of all products except foodstuffs. By middle to late October this composite index will be available through September. I can project the index from September to June of the next year, based on the index's change in the previous 7 months. I could use GMB's inflation projections, which are used to project budget deficits, however these projections are politically biased and in the past have been very conservative.

Attached are the factors to convert from 75-85 producer prices to March 1986 prices.

202 July 4

203 July 5

204 July 6

205 July 7

206 July 8

207 July 9

208 July 10

209 July 11

210 July 12

211 July 13

212 July 14

213 July 15

214 July 16

215 July 17

216 July 18

217 July 19

218 July 20

219 July 21

220 July 22

221 July 23

222 July 24

223 July 25

224 July 26

225 July 27



# Conversion Factors

YEAR	March 1986 cost
1975	1.8309
1976	1.7216
1977	1.6094
1978	1.4956
1979	1.3877
1980	1.2826
1981	1.1828
1982	1.0884
1983	.9946
1984	.9033
1985	.8194
March 1986	1.0000





WAs are best managed in  
relation between WAs and  
there are clear divisions  
list of WAs and their 2

RWA

### Group 1 (First 4)

Desolation Canyon  
Little Sahara  
San Juan River  
Colorado River

### Group 2 (45 through 8)

Utah Extensive  
Canyons of the Escalante  
Canyon Rims  
Henry Mountain Extensive  
Grand Gulch

## APPENDIX F

### Group 3 (#10 through 25)

Price River Extensive  
Bonneville Salt Flats  
Browns Park  
Brand Extensive  
Pony Express Trail  
House Range Extensive

### Group 4 (26 through 31)

San Rafael Swell  
Hogwilt Mountain  
Paria/Vermilion Cliffs  
San Juan Extensive  
Pelican Lake  
Pony Express Extensive  
Bear River Extensive  
Cleveland Lloyd  
Dark Canyon

F

APPENDIX B



# APPENDIX F

## Priority Groupings for Utah Recreation Management Areas (RMAs)

RMAs are best managed in priority groups because a) rankings cannot be totally precise between RMAs with management programs that are similar in size and b) there are clear differences in the amount of workload between the groupings. A list of RMAs and their priority groups follows.

<u>RMA</u>	<u>Resource Area</u>	<u>District</u>	<u>Workload Points</u>
<u>Group 1 (First 4)</u>			
Desolation Canyon	Price River	Moab	53
Little Sahara	House Range	Richfield	47
San Juan River	San Juan	Moab	42
Colorado River	Grand	Moab	40
<u>Group 2 (#5 through 9)</u>			
Dixie Extensive	Dixie	Cedar City	27
Canyons of the Escalante	Escalante	Cedar City	26
Canyon Rims	Grand	Moab	26
Henry Mountain Extensive	Henry Mountain	Richfield	22
Grand Gulch	San Juan	Moab	21
<u>Group 3 (#10 through 15)</u>			
Price River Extensive	Price River	Moab	17
Bonneville Salt Flats	Pony Express	Salt Lake	16
Browns Park	Diamond Mountain	Vernal	12
Grand Extensive	Grand	Moab	11
Pony Express Trail	Pony Express	Salt Lake	10
House Range Extensive	House Range	Richfield	10
<u>Group 4 (#16 through 24)</u>			
San Rafael Swell	San Rafael	Moab	9
Moquith Mountain	Kanab	Cedar City	8
Paria/Vermillion Cliffs	Kanab	Cedar City	8
San Juan Extensive	San Juan	Moab	8
Pelican Lake	Diamond Mountain	Vernal	8
Pony Express Extensive	Pony Express	Salt Lake	7
Bear River Extensive	Bear River	Salt Lake	7
Cleveland Lloyd	Price River	Moab	6
Dark Canyon	San Juan	Moab	6

# APPENDIX 2

## Priority Groupings for Utah Recreation Management Areas (RMAs)

RMAs are best managed in priority groups because a) rankings cannot be totally precise between RMAs with management programs that are similar in size and b) there are clear differences in the amount of work required between the groupings. A list of RMAs and their priority groups follows.

RMAs	Resource Area	District	Workload Points
<u>Group 1 (First 4)</u>			
Desolation Canyon	Price River	West	53
Little Salt Lake	House Range	Richfield	47
San Juan River	San Juan	Moab	45
Cedar Breaks	Grand	Moab	40
<u>Group 2 (5th through 9)</u>			
Delta Extensive	Delta	Cedar City	37
Canyons of the Escalante	Escalante	Cedar City	36
Canyon Rios	Grand	Moab	35
Henry Mountains Extensive	Henry Mountains	Richfield	33
Grand Gulch	San Juan	Moab	31
<u>Group 3 (10th through 18)</u>			
Price River Extensive	Price River	Moab	17
Powder Mill Salt Flats	Four Corners	Salt Lake	16
Brown Park	Diamond Mountains	Yarnall	15
Grand Extensive	Grand	Moab	14
Four Corners Trail	Four Corners	Salt Lake	10
House Range Extensive	House Range	Richfield	10
<u>Group 4 (19th through 24)</u>			
San Rafael Swill	San Rafael	Moab	9
Hooper Mountain	Kanab	Cedar City	8
Park Valley/John Henry	Kanab	Cedar City	8
San Juan Extensive	San Juan	Moab	8
Pelican Lake	Diamond Mountains	Yarnall	6
Four Corners Extensive	Four Corners	Salt Lake	5
Beaver River Extensive	Beaver River	Salt Lake	5
Cleveland Lind	Price River	Moab	4
Dark Canyon	San Juan	Moab	4



## Utah RMA Workloads (cont'd)

Group 5 (#25 through 30)

Kanab Extensive	Kanab	Cedar City	4
Pony Express	House Range	Richfield	4
Labyrinth Canyon	San Rafael	Moab	4
San Rafael Extensive	San Rafael	Moab	4
Book Cliffs Extensive	Book Cliffs	Vernal	4
Escalante Extensive	Escalante	Cedar City	3

Group 6 (#31 through 40)\*

North Deep Creeks	Pony Express	Salt Lake	0
Railroad Grade	Bear River	Salt Lake	0
Beaver River Extensive	Beaver River	Cedar City	0
Deep Creek Mountains	House Range	Richfield	0
Tabernacle Hill	Warm Springs	Richfield	0
Warm Springs Extensive	Warm Springs	Richfield	0
Sevier River Extensive	Sevier River	Richfield	0
Diamond Mountain Extensive	Diamond Mountain	Vernal	0

\* An assignment of "0" workload points indicates no permitting, no developed or semi-developed recreation facilities and no recreation fees collected.

Utah BMA Workloads (cont'd)

Group 3 (453 through 501)

4	Cedar City	Kanab	Kanab Extensive
4	Richfield	House Range	Pony Express
4	Hosh	San Rafael	Labyrinth Canyon
4	Hosh	San Rafael	San Rafael Extensive
4	Vernal	Book Cliffs	Book Cliffs Extensive
3	Cedar City	Escalante	Escalante Extensive

Group 4 (452 through 481)\*

0	Salt Lake	Pony Express	North Deep Creek
0	Salt Lake	Beaver River	Rafferty Grade
0	Cedar City	Beaver River	Beaver River Extensive
0	Richfield	House Range	Deep Creek Mountain
0	Richfield	Warm Springs	Tabernash Hill
0	Richfield	Warm Springs	Warm Springs Extensive
0	Richfield	Sevier River	Sevier River Extensive
0	Vernal	Diamond Mountain	Diamond Mountain Extensive

\* An assignment of "0" workload points indicates no permitting, no developed or semi-developed recreation facilities and no recreation fees collected.



This list is a compilation of  
tasks. In some cases, I may

## I. Public Response

Answering telephone inquiries  
Answering letters  
Personal contacts with users

## II. Permitting

Issuing commercial permits  
Issuing noncommercial permits  
Issuing competitive permits  
Fee collection and processing  
Stipulation development  
Sending out permit follow-up  
Pre-use field inspections  
Writing IAs (usually for non-  
commercial letters only)  
Scheduling commercial use  
Maintaining permit use data  
Field inspections for permit  
Issuing permit related data  
Commercial permit use review  
Permit area monitoring and  
trespass abatement and work  
Search and rescue (as needed)

## APPENDIX G

## III. Site Management

Trash collection  
Providing sewer services  
Writing and administering a  
Fee collection and processing  
Collecting use data  
On site use supervision  
Site monitoring  
Facility maintenance (for  
Facility improvement (after  
Facility repair

G





## APPENDIX G

### RECREATION TASK LIST

This list is a compilation of the tasks identified at the various meetings around the state. In some cases, I have added explanations or related tasks.

#### I. Public Response

- Answering telephone inquiries
- Answering letters
- Personal contacts with walk-in visitors

#### II. Permitting

- Issuing commercial permits
- Issuing noncommercial permits
- Issuing competitive permits
- Fee collection and processing
- Stipulation development
- Sending out permit information packets
- Pre-use field inspections (mainly for ORV races)
- Writing EAs (usually for new events and/or ORV races)
- Noncommercial lotteries (to assign launch dates)
- Scheduling commercial use
- Maintaining permit use statistics (for billing purposes)
- Field inspections for permit compliance
- Issuing permit related decisions
- Commercial permittee evaluations
- Permit area monitoring studies
- Trespass abatement and noncompliance actions
- Search and rescue (as requested)

#### III. Site Management

- Trash collection
- Providing sewer services
- Writing and administering contracts (usually for cleanup or sewer services)
- Fee collection and processing
- Collecting use data
- On site use supervision
- Site monitoring
- Facility maintenance (for example, painting)
- Facility improvement (altering existing facilities)
- Facility repair





#### IV. Planning

- Land use planning (RMP or MFP)
- Recreation Opportunities Inventory
- Visual Resources Inventory and VRM designation
- ORV inventory and designation
- Writing Activity Plans
- Site planning, survey or design

#### V. Incidental tasks

- General patrol and cleanup
- ORV monitoring
- Collecting general use data for the resource area
- Search and rescue (as requested)
- EA review or contributions (not usually 4333 or 4712)
- VRM contrast ratings (not usually 4333 or 4712)

#### VI. Program Management

- Supervision
- Volunteer recruitment
- Volunteer supervision
- AWP preparation and monitoring
- Internal information request responses
- Interagency coordination





ORDER FORM  
for the Price District, 24

Prepared: May 26, 1954, by:  
Craig S. Soper  
Janice Haskins  
Joe Wilson  
John Kraschauer  
Gary A. Hovard

I. DEFINITION OF PROBLEM/BACKGROUND  
This section contains background information  
current use and its concerns regarding

II. NATURE OF SITUATION  
This section describes the goal and

APPENDIX H

III. DATA COLLECTION  
This section contains the data sources  
used with the problem, their use  
alternatives.

IV. POSSIBLE USES OF DATA ITEMS  
This section describes the data items  
which they could be used for.

V. ALTERNATIVES  
This section describes the alternatives  
from which the data can change.

VI. SUMMARY



APPENDIX II



GREEN RIVER MANAGEMENT PROSPECTUS  
for the Price District, Bureau of Land Management

Prepared: May 25, 1983, by:  
Craig Saupe  
Janice Nasiatka  
Rick Wilson  
Kim Kraushaar  
Gary Adelhardt

TABLE OF CONTENTS

I. DEFINITION OF PROBLEM/BACKGROUND:

This section contains background information about the area and its current use and the concerns expressed by the BLM for managing it.

II. NATURE OF SITUATION:

This section describes the goals and objectives of the project.

III. DATA-GATHERING SYSTEMS:

This section contains the data-gathering systems selected for use, along with the procedures, their frequency and timing and suggested alternatives.

IV. DATA COLLECTION:

This section explains who could collect the data.

V. POSSIBLE USES OF DATA ITEMS:

This section contains the data forms proposed for collection and what they could be used for.

VI. ALTERNATIVES:

This section describes five alternatives for data collection systems from which the BLM can choose.

VII. BIBLIOGRAPHY

UTAH STATE UNIVERSITY  
COLLEGE OF NATURAL RESOURCES  
UMC  
LOGAN, UTAH 84322

KENT DOWNING  
ASSOCIATE PROFESSOR  
DEPARTMENT OF FOREST RESOURCES

OFFICE:  
(801) 750-2544

RESIDENCE:  
(801) 753-0889



GREEN RIVER MAINTENANCE PROJECT  
FOR THE PIERCE DISTRICT, Bureau of Land Management

Prepared: May 22, 1982, by  
Craig Langer  
Janice Heston  
Rick Wilson  
Kim Knepper  
Gary Knepper

TABLE OF CONTENTS

- I. DEFINITION OF PROJECT/ACTIVITY  
This section contains background information about the area and the current use and the concerns expressed by the BLM for carrying out the project.
- II. NATURE OF SITUATION  
This section describes the goals and objectives of the project.
- III. DATA-GATHERING SYSTEM  
This section contains the data-gathering system which for the project, along with the objectives, their frequency and timing and expected of activities.
- IV. DATA COLLECTION  
This section explains the data collection system.
- V. PROJECTS AND DATA USE  
This section explains the data use, provides for collection and what data could be used for.
- VI. ATTACHMENTS  
This section contains five attachments for data collection system from which the data can be used.
- VII. BIBLIOGRAPHY



STATE: WYOMING  
COUNTY: LINCOLN  
PROJECT: GREEN RIVER MAINTENANCE PROJECT

DATE: 5/22/82



## I. DEFINITION OF PROBLEM/BACKGROUND

The Price District of the Bureau of Land Management is in charge of managing two areas of study along the Green River. The first is a stretch about eight miles long which runs from Nefertiti Rapids to Swasey Rapids, just north of Green River, Utah (appendix 1). It is a day-use area, frequented by rafters, canoeists and kayakers. A deadend road runs along this entire stretch of river. Floaters usually begin their trip at the Nefertiti Rapids access and finish at the Swasey Rapids pullout point.

Labyrinth Canyon is another section of river that lies south of Green River, Utah. The Green River flows through the canyon for approximately 70 miles, and most river runners make the entire trip. They usually begin their trip at Green River State Park and float the entire section down to the Mineral Bottom access point, which requires about five days.

Although there are many recreation activities that occur along the Green River, river-running is the most popular use. Statistics reveal that use is climbing on all portions of the river and even on the Labyrinth Canyon/Nefertiti stretches. Statistics show the increased use, but the Bureau of Land Management has no accurate use statistics. This poses a problem.

Accurate user numbers are needed so the BLM can develop a land management program for Labyrinth Canyon. And, they also need them so that they can determine the optimum number of permits which should be allocated for the day-use section (Nefertiti-Swasey). The problem then, is to find a feasible method for determining user levels.

The BLM wants to develop a recreation management program so they may provide recreationists with a quality setting in which they can recreate, while ensuring that the environment is not further degraded. The Federal Land Management Act provides the authority for the BLM to manage its lands. This legislation declares, "the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource and archaeological values.... and that provide for outdoor recreation and use" (Barry et.al 1979). Thus the need exists for reliable use statistics from which a recreation management program can be developed.

## II. NATURE OF SITUATION

The BLM has indicated to us that a system for gathering reliable user numbers is needed. They already have a method, but it is

## 1. THE NATURE OF THE PROBLEM

The Prime Minister of the Government of India has expressed his desire to have a study made of the Ganges River. The study is to be made in order to determine the causes of the pollution of the river and to find out the best method of cleaning it. The study is to be made in order to determine the causes of the pollution of the river and to find out the best method of cleaning it.

The study is to be made in order to determine the causes of the pollution of the river and to find out the best method of cleaning it. The study is to be made in order to determine the causes of the pollution of the river and to find out the best method of cleaning it.

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## 2. THE NATURE OF THE PROBLEM

The study is to be made in order to determine the causes of the pollution of the river and to find out the best method of cleaning it. The study is to be made in order to determine the causes of the pollution of the river and to find out the best method of cleaning it.



not reliable. The management area they are concerned with includes two stretches of the Green River: Labyrinth Canyon and Nefertiti Rapids to Swasey Rapids.

Given this situation, we propose to develop a method of data collection that they can use to gather reliable user counts and other information concerning the user.

We also want to include a system for gathering data concerning user perceptions and their impacts on resources because they indicated that a river recreation management program will be developed for the Green River. To do this, we feel that reliable user statistics are only one of the data forms needed.

Other data needed to formulate a management plan include resource impacts and user perceptions. From such data, the BLM will be able to develop a river recreation management program that will reflect the users and the BLM's needs.

The purpose of this report is to propose and explain several data collection methods that we have developed. They will, when considered collectively, represent all of the concerns mentioned above. The methods include: camera counts, traffic counts and personal interviews. Our proposed data collection plan is designed to adequately quantify and profile the present use along the river, and compare use with an updated assessment of environmental impacts. This will provide baseline data from which the BLM can base and make management decisions. These decisions will hopefully provide the user with the highest quality experience. while protecting the environment and the resources to the fullest possible extent.





### III. DATA-GATHERING SYSTEMS

There are three major systems which have been proposed for data collection: double-sampling with the use of a traffic counter; double-sampling with the use of a time-lapse or remote-sensing camera; and on-site or mailed questionnaires.

This section describes in detail, the methods chosen for gathering the data, the procedures to be followed, the frequency and timing of the data collection and suggestions of some different alternatives to each method.

#### A. Double-Sampling With the Use of a Traffic Counter

The method selected for collection of data along the Nefertiti to Swasey Rapids section of the Green River, is a double-sampling procedure involving the use of a traffic counter.

Double-sampling is a method designed to determine the mathematical relationship between one variable and another: one that is easily measured (such as car counts), and one that is more costly to obtain, but is needed for management decision-making (such as use of different types). Once a mathematical relationship is established, the variable which is easily/inexpensively measured is used to estimate the variable which is more costly to obtain. Statistical procedures are also applied to determine the reliability of the estimates.

1. The following are the steps which must be followed to set up and perform the double-sample:

##### Step 1

Before a sample size can be determined, you must first analyze data from either historical records or a preliminary sample. For this example, we will assume that historical data is not considered reliable enough to use in calculating a sample size; therefore, we will use data from a preliminary sample.

##### Step 2

For the preliminary sample, choose about four days at the beginning of the season which are representative of days in the remainder of the season. For instance, we have chosen June 4, 5, 8 and 9 for our preliminary sample days, which are Saturday, Sunday, Tuesday and Wednesday, respectively. These particular days were chosen on the basis that two weekend-days and two weekdays are representative of the types of days in the entire season. Saturday and Sunday were assumed to represent the typical weekend, while Tuesday and Wednesday were assumed to represent the typical weekdays (with the

There are three major systems which have been proposed for data collection: double-sampling with the use of a traffic counter, double-sampling with the use of a time-lapse or remote-sensing camera, and double-sampling with the use of a traffic counter.

This section describes in detail the double-sampling system with the data, the procedure to be followed, the frequency and timing of the data collection and suggestions of some typical applications for each method.

#### A. Double-sampling with the use of a traffic counter

The method selected for collection of data along the highway to study traffic volume of the Green River, is a double-sampling procedure involving the use of a traffic counter.

Double-sampling is a method designed to determine the relationship between two variables. The first variable is the number of vehicles passing a fixed point on the highway, and the second variable is the number of vehicles passing a fixed point on the highway. The first variable is the number of vehicles passing a fixed point on the highway, and the second variable is the number of vehicles passing a fixed point on the highway. The first variable is the number of vehicles passing a fixed point on the highway, and the second variable is the number of vehicles passing a fixed point on the highway.

The following are the steps which must be followed in the double-sampling procedure:

#### Step 1

Before a double-sampling can be conducted, the first variable must be determined. The first variable is the number of vehicles passing a fixed point on the highway, and the second variable is the number of vehicles passing a fixed point on the highway. The first variable is the number of vehicles passing a fixed point on the highway, and the second variable is the number of vehicles passing a fixed point on the highway.

#### Step 2

For the double-sampling method, choose about four days of the year for the study. The first variable is the number of vehicles passing a fixed point on the highway, and the second variable is the number of vehicles passing a fixed point on the highway. The first variable is the number of vehicles passing a fixed point on the highway, and the second variable is the number of vehicles passing a fixed point on the highway.



least amount of influence from the weekend).

### Step 3

On each of these preliminary sample days, an employee will go out to where the traffic counter has been set up and take a reading at the start of the day. With each vehicle that trips the traffic counter, the employee will count the number of occupants within it. At the end of each of the sample days, the employee will take an ending reading.

### Step 4

Once this preliminary data has been collected, it is used in calculating further values that will eventually lead to the determination of the desired sample size.

Example 1: Suppose you obtained the following data from your preliminary sampling days:

Sample Day	Traffic Counter Reading (x)	Actual Count of People (y)
June 4	34	149
June 5	23	114
June 8	8	27
June 9	11	37
Sums: 4	<u>76</u>	<u>327</u>

There is a strong likelihood that weekend use will have different averages than week-day use.

Average the y's:  $327/4 = 81.75 = \bar{y}$

Next, determine the standard deviation (s) by using the formula:

$s = \text{THE SQUARE ROOT OF: the sum of: } (y - \bar{y})[\text{SQUARED}] / n - 1$   
(Husch et al. 1972).

For our hypothetical data set, we would calculate "s" in the following way:

$$\begin{aligned}
 s &= \text{THE SQUARE ROOT OF: } [(149 - 81.75)[\text{SQUARED}] + (114 - 81.75)[\text{SQUARED}] + (27 - 81.75)[\text{SQUARED}] + (37 - 81.75)[\text{SQUARED}] / 3 \\
 &= \text{THE SQUARE ROOT OF: } (4522.56) + (1040.06) + (2997.56) + (2002.56) \\
 &\quad / (\text{divided by}) 3 \\
 &= \text{THE SQUARE ROOT OF: } (10,562.74 / 3) \\
 &= 59.34
 \end{aligned}$$

### Step 5

least amount of influence from the weekend.

### Step 3

On each of these five business sample days, an employee will go out to where the traffic counter has been set up and take a reading at the start of the day. With each vehicle that drives the traffic counter, the employee will record the number of seconds within 15. At the end of each of the sample days, the employee will take an ending reading.

### Step 4

Once this preliminary data has been collected, it is used in calculating further values that will eventually lead to the accurate picture of the desired sample size.

Example 1: Suppose you obtained the following data from your preliminary sampling days:

Sample Day	Traffic Counter Reading (s)	Actual Count of People (s)
June 1	34	142
June 2	32	118
June 3	8	31
June 4	11	31
June 5	10	32

$$\text{Average } \bar{x} = \frac{34 + 32 + 8 + 11 + 10}{5} = 19$$

Next, determine the standard deviation (s) by using the formula:

$$s = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n - 1}} \quad \text{The square root of the sum of: } (x_i - \bar{x})^2 \text{ (summed)} \div n - 1$$

For our hypothetical data set, we would calculate "s" to be:

$$\begin{aligned} s &= \sqrt{\frac{\sum (x_i - \bar{x})^2}{n - 1}} = \sqrt{\frac{(34 - 19)^2 + (32 - 19)^2 + (8 - 19)^2 + (11 - 19)^2 + (10 - 19)^2}{5 - 1}} \\ &= \sqrt{\frac{225 + 169 + 121 + 64 + 81}{4}} = \sqrt{\frac{600}{4}} = \sqrt{150} = 12.25 \end{aligned}$$

### Step 5



Now you must determine the amount of error you're willing to accept in your estimate of the true number of visitors. For this example, we'll accept an estimate that is within 55 people (plus or minus) of the "truth".

#### Step 6

With the standard deviation calculation (59.34) and the allowable error determination (55), you are now ready to calculate the sample size, which, if used, will give you the best estimates for your money. This calculated sample size will represent the minimum sample necessary to give estimates of the desired reliability.

#### Step 7

The equation for calculating sample size is:  $n = [s \cdot t / E]^2$  where:  
 $n$  = sample size  
 $s$  = standard deviation  
 $t$  = a "t" value obtained from a student's "t" table (Appendix 2)  
 $E$  = allowable error

#### Step 8

You first start by putting the known values into the equation, namely,  $s$  and  $E$ . You then go to a student's "t" table and pick a sample size out to start with. For this example, we'll use 10. Plugging the corresponding "t" value into the equation, we solve for "n" and get:  $n = [(59.34 \cdot 2.262) / 55]^2 = 5.956$ , which is NOT equal to 10; it's too low. Thus, we try a lower sample size. (If the calculated  $n$  had been higher than 10, we would try a higher sample size.) Through trial and error, going lower and higher, we eventually zero-in on the correct sample size of 7.  $n = [(59.34 \cdot 2.447) / 55]^2 = 6.97$  OR 7 (Notice in Appendix 2 that 2.447 is the corresponding "t" value for  $n = 7$  or d.f. = 6, where d.f. =  $n - 1$ .)

#### Step 9

Once the sample size has been calculated, you must now determine which days out of the season will be chosen to perform double-sampling on.

Because of the need to obtain a sample which will be representative of the entire season, we felt that there are three distinct types of days which should be included in the sample. These are: weekends, weekdays and holidays.

Therefore, we recommend that the sampling procedure that should be followed is that of a stratified-random sample. This type of sampling method would involve stratifying the population (the seasonal calendar) into desired sampling strips, and sampling, at random, ONLY from these strips.

Now you must determine the amount of error you're willing to accept in your estimate of the true number of visitors. For this example, we'll accept an estimate that is within 25 people (plus or minus) of the "truth".

## Step 2

With the standard deviation calculation (25.54) and the allowable error determination (25), you are now ready to calculate the sample size, which, as noted, will give you the desired confidence for your survey. This calculated sample size will represent the minimum sample necessary to give confidence of the desired reliability.

## Step 3

The equation for calculating sample size is:

$$n = \frac{Z^2 \cdot p \cdot q \cdot E^2}{d^2}$$

where:

- $n$  = sample size
- $Z$  = standard deviation
- $p$  = proportion of population
- $q$  = 1 -  $p$
- $E$  = allowable error
- $d$  = desired confidence

## Step 4

The first step in solving the above equation is to determine the values for each variable. The value for  $Z$  is determined by the level of confidence you want. For this example, we'll use 95% confidence, which corresponds to a  $Z$  value of 1.96. The value for  $p$  is the proportion of the population you are estimating. If you have no idea what the proportion is, you can use 0.50, which is the most conservative estimate. The value for  $q$  is 1 -  $p$ . The value for  $E$  is the allowable error, which is 25 in this example. The value for  $d$  is the desired confidence, which is 0.95 in this example. Plugging these values into the equation, we get:

$$n = \frac{1.96^2 \cdot 0.50 \cdot 0.50 \cdot 25^2}{0.95^2}$$

which equals 1,041.76. Rounding up, we get a sample size of 1,042.

## Step 5

Now the sample size has been calculated, you must now determine which size out of the two will be chosen to perform the survey.

Because of the nature of the survey, the sample size will be determined by the nature of the survey. In this case, the sample size is determined by the nature of the survey, which is the number of people who will be surveyed.

Therefore, we recommend that the sampling procedure that should be followed is that of a stratified-random sample. This type of sampling method would involve stratifying the population (the total customer base) into several sampling strata, and sampling, at this point, from these strata.



We also felt that the calculated sample size of 7, in our hypothetical example, should be increased to 10, to obtain more accurate estimates, and for the sake of convenience.

If July 4 weekend is specifically chosen as the holiday to sample, then this could be the basis for estimates of all the holidays throughout the season. All three days of the holiday weekend could be sampled (Saturday, Sunday, Monday), which would leave seven more sample days to be randomly chosen from among weekends (Saturday, Sunday) and weekdays (Tuesday, Wednesday) from each of the months in the season.

Example 2: With the calculated sample size of 7, plus 3 days for the July 4 holiday weekend, our stratified-random sample days and the hypothetical data from each are as follows:

Sample Day	Traffic Counter Reading (x)	Actual Count of People (y)
June 14	12	29
June 25	39	156
July 2	128	603
July 3	84	378
July 4	119	584
July 26	33	82
Aug 14	49	195
Aug 24	25	67
Sept 3	104	478
Sept 13	35	95
	<hr/> 628 total	<hr/> 2667 total

Note: Because of the timing of this project, it is not possible to include the month of May as a sample consideration.

#### Step 10

The ratio can now be developed between x and y by dividing the sum of the y's by the sum of the x's.

$$\begin{aligned}\text{Ratio (r)} &= \text{sum of y's} / \text{sum of x's} \\ &= 2667 / 628 = 4.25 \text{ persons}\end{aligned}$$

This ratio, in this case, represents the average number of visitors that each "click" on the traffic counter represents. Once this ratio has been established, it can be used in conjunction with monthly and/or yearly traffic counter readings to predict total visitor use. This can be done by multiplying the traffic counter reading by the ratio.

If the actual ratios for holidays, weekends and weekdays are different; this will not be accurate.

We also felt that the calculated sample size of 1,100 was too small. For example, should we increase to 15, we obtain more accurate estimates, and for the sake of convenience.

It only 4 weeks is specifically chosen as the interval to sample, then this could be the basis for estimates of all the holidays throughout the season. All those days of the holiday season could be sampled (Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday) from each of the weeks in the season.

Example 5: With the calculated sample size of 1,100, 2 days for the July 4 holiday weekend, our estimated-random sample size and the hypothetical data from each are as follows:

Sample Day	Traffic Counter Reading (x)	Actual Count of People (y)
June 16	15	10
June 22	25	150
July 2	100	400
July 3	50	210
July 4	110	500
July 5	20	45
Aug 1	40	100
Aug 2	10	40
Sept 2	100	470
Sept 3	30	30
	520 Total	1200 Total

Notes: Because of the timing of this project, it is not possible to include the count of 100 as a sample observation.

### Step 10

The ratio  $\hat{r}$  can be developed between  $x$  and  $y$  by dividing the sum of the  $y$ 's by the sum of the  $x$ 's.

$$\text{Ratio } \hat{r} = \text{sum of } y's / \text{sum of } x's$$

$$= 1200 / 520 = 2.31$$

This ratio, in this case, represents the average number of people that each of the traffic counter observations. This ratio has been calculated, it can be used in conjunction with other data to estimate the number of people that will be counted by the counter.



If a season's end traffic counter reading is 9,565 clicks, the season's total visitor use can be estimated by multiplying 9,565 by 4.25 and getting: 40,651 visitors.

#### Step 11

A confidence interval calculation can now be made to determine how "good" our estimate is. This is done by using the equation:

Confidence Interval about the true population mean =

$$\bar{y} \pm (s / \text{SQUARE ROOT of } n) * t$$

where:

$\bar{y}$  = the average of the y's

s = the standard deviation of the y's

n = the sample size

t = the "t" value from the student's t table for n - 1 degrees of freedom

Example 3: For our hypothetical set of data, we can calculate the following:

$$\bar{y} = 2667 / 10 = 266.7$$

$$s = \text{the SQUARE ROOT of: the sum of: } (y - \bar{y})[\text{SQUARED}] / n - 1 = 223.2$$

$$t = 2.262 \text{ for d.f.} = 9, \text{ two-tailed probability level} = .95$$

Thus, our confidence interval about the true population mean is:

$$266.7 (+ \text{ or } -) (223.2 / \text{SQUARE ROOT of } 10) * (2.262)$$

$$= 266.7 (+ \text{ or } -) 159.7$$

$$= 107 \text{ to } 426$$

This confidence interval says that our estimate of the true population mean (the average for the entire season of interest) is between 107 and 426 people and the chance that this is wrong is less than 5 out of 100, or 1 in 20. We are 95% sure of this estimate.

If the range of the confidence interval is too wide, it can be narrowed by either increasing the sample size even more or lowering the two-tailed probability level to something less than .95, i.e. accepting less certainty.

## 2. Alternatives

Should the agency's time, budget and/or manpower allow it, the manager may wish to use the traffic counter as a predictor of other, more specific variables, in addition to user numbers. To do this,

If a nation's one traffic counter recorded 12,500 clicks, the nation's total vehicle use can be estimated by multiplying 12,500 by 4.52 and getting 56,500 vehicles.

### Step 11

A confidence interval calculation can now be made to determine how "good" our estimate is. This is done by using the equation:

Confidence Interval about the true population mean =

$$\bar{y} \pm 1.96 \sqrt{\frac{s^2}{n}}$$

where:

$\bar{y}$  = the average of the  $y$ 's

$s$  = the standard deviation of the  $y$ 's

$n$  = the sample size

$1.96$  = the "Z" value from the standard normal distribution table for a 95% confidence interval

Example 1: For our hypothetical set of data, we can calculate the following:

$$\bar{y} = 12,500 / 10 = 1,250$$

$$s = \sqrt{\frac{100,000,000}{10}} = 10,000$$

$$1.96 \sqrt{\frac{s^2}{n}} = 1.96 \sqrt{\frac{100,000,000}{10}} = 19,600$$

Thus, our confidence interval about the true population mean is:

$$1,250 \pm 19,600 \text{ or } 18,350 \text{ to } 20,850$$

$$= 18,350 \text{ to } 20,850$$

$$= 18,350 \text{ to } 20,850$$

This confidence interval tells that our estimate of the true population mean (the average of the 10 traffic counters) is between 18,350 and 20,850. The chance that this is wrong is less than 5 out of 100, or 5%. In our case, this is a 95% confidence interval.

If the range of the confidence interval is too wide, it can be narrowed by either increasing the sample size or lowering the two-tailed probability level. In something less than .05, .01, or even less, the confidence interval becomes narrower.

### 2. K1 Interference

Should the agency's time, budget and/or manpower allow it, the manager may wish to use the traffic counter as a predictor of other more specific variables, in addition to user numbers. To do this,



the employee at the traffic counter should briefly stop every vehicle that trips it on each of the sample days, and ask them some personal questions.

Examples of questions might be:

1. Are you here as river or non-river ~~users?~~ <sup>Travelers</sup> *fishermen would be considered*
2. If river users: Are you part of a commercial trip, or are you private users? *river users but not boaters*
3. If river users: What type of crafts will you be using today?
4. Where are you coming from?
5. If non-river users: Will you be picnicing, fishing, sightseeing, or participating in some other activity?
6. etc...

A checklist could be developed with each category at the top of a column which could quickly and easily be filled in with the numbers of people participating in each activity during each of the sample days (see Appendix 3).

From this data, a ratio could be calculated to represent numbers of each type of recreationist per traffic counter click. For instance, from our hypothetical data set, we could have collected more specific information as described above and obtained the following ratios:

One click on the traffic counter represents an average of 4.25 persons; or 3.2 river users and 1.05 non-river users; or 2.8 rafters, .4 kayakers, and .4 picnicians, .45 fishermen and .2 other.

In this way, one traffic counter can be used as a predictor for quite a large number of other variables.





### 3. Guidelines for Setting up Traffic Counter

The traffic counter should be set up on a narrow stretch of the road where vehicles cannot easily stop. Somewhere that would enable the counter box to be hidden in vegetation, rocks etc. would be best. These considerations would help eliminate tampering with the mechanism. If some apprehension still exists as to its safety, a heavy gauge lockable metal box should be constructed to house the counter mechanism. This could even be bolted to a small poured concrete foundation or some other type of anchor.

The area selected for placement of the counter should be located before any turn-offs to the river to ensure all users are counted. There should be a turn-out near the counter. This would provide an area for an employee to stop in-going cars when conducting the samples and yet not block out-going traffic. This pull-off would also allow employees to park their vehicles within easy walking distance of the counter for collecting the data and checking the counter's operation (well charged battery, etc.).

The counter cord should be stretched completely across the road and there should be no circumventing roads or trails that would allow users to enter the area but not be counted.

### 4. Justification for Use of a Traffic Counter.

We had several reasons for selecting the traffic counter as the method of data collection on the day-use stretch. The area is well suited for traffic counter use in that it has only one access road. It is ill-suited for camera use in that you can't be assured that all users will be counted. With several possible put-in and take-out points users could easily be missed by the camera. People will also run some rapids over and over. If the camera is set up in this area the people will be counted over and over; or if the camera is not set up there the people will not be counted at all. With the camera on the river, all non-river users are totally missed. If the camera films vehicles on the road, it will be impossible to tell if a van or pickup topper contains a raft or if a carload of people will be picnicing or meeting others to raft the river.

Cost was also a big consideration. In an effort to keep costs to an absolute minimum, the traffic counter seemed to be by far the best system. Purchasing a time-lapse camera is quite expensive while Jim already has a traffic counter that can be used. The traffic counter is much less expensive in that purchasing film and film developing is not required. The camera also requires more employee man-hours to keep it in service by frequently changing the film.

## 2. Guidelines for Traffic Counter

The traffic counter should be set up on a narrow stretch of the road where vehicles cannot easily stop. Furthermore, the road should be straight and the traffic should be free-flowing. The counter should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator.

The area selected for placement of the counter should be free of any obstructions. The counter should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator.

The counter should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator.

## 3. Installation for Use of a Traffic Counter

The traffic counter should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator.

The counter should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator. It should be placed in a location where it can be easily accessed by the counter operator.



JH  
feb

Moab District  
Price River Resource Area  
P. O. Drawer AB  
Price, Utah 84501

83104  
(U-066)

STAFF REPORT

TITLE: PRICE CANYON RECREATION AREA VISITOR STUDY

DATE: NOV 1 - 1984

This study is designed to provide an accurate and reliable data base of visitor use for Price Canyon Recreation Area. This will include gathering information from and about the visitor, such as the number of visitors and their length of stay. The visitor use data with additional studies can be used for trend forecasting of visitors and use at Price Canyon Recreation Area.

I. DATA DETERMINATION METHODOLOGY

To determine visitor use statistics at Price Canyon Recreation Area, several methods might be utilized. To ensure accuracy and eliminate bias two methods (double sampling) should be used. The double sampling method involves estimating recreation use at the site by using two proven indicators and correlating the results to produce reliable use figures.

The most accepted form of sampling is a personal interview survey. This form of sampling is by far the most reliable. The interviewer cannot only make sure the desired number of visitors are sampled (from a specific small percentage to total visitor sampling) but also the questions and desired information can be explained to the visitor for clarity. More detail can also be collected.

There are disadvantages to the Personal Interview Survey method. One, is the interviewer bias, in which the interviewer may intentionally or unintentionally select interviewees (i.e., by gender or age). This could be avoided by using a 100 percent sampling which could be easily accomplished at Price Canyon Recreation Area because of the small size of the area and the relatively small number of visitors occupying the recreation area at one time.

Another disadvantage of the method is the expense and time needed to perform the study. Personal interviews take considerably more manpower time than other methods. This is serious constraint considering the availability of funds and personnel to devote to a use study at Price Canyon Recreation Area.

83104  
(U-088)

## STATE REPORT

TITLE: PRICE CANYON RECREATION AREA VISITOR STUDY

DATE: NOV. 1 - 1984

This study is designed to provide an accurate and reliable data base for visitor use for Price Canyon Recreation Area. This will include gathering information from and about the visitor, such as the number of visitors and their length of stay. The visitor use data will be used to determine the need for crowd forecasting of activities and use at Price Canyon Recreation Area.

### DATA DETERMINATION METHODOLOGY

To determine visitor use characteristics at Price Canyon Recreation Area, several methods will be utilized. The primary method will be direct observation (visual census) which will be used to determine the number of visitors and their length of stay. The visitor use data will be used to determine the need for crowd forecasting of activities and use at Price Canyon Recreation Area.

The data will be used to determine the need for crowd forecasting of activities and use at Price Canyon Recreation Area. The data will be used to determine the need for crowd forecasting of activities and use at Price Canyon Recreation Area.

The data will be used to determine the need for crowd forecasting of activities and use at Price Canyon Recreation Area. The data will be used to determine the need for crowd forecasting of activities and use at Price Canyon Recreation Area.

Another characteristic of the study is the extent and time covered by the study. The study will be conducted over a period of one year, from October 1984 to September 1985. The study will be conducted over a period of one year, from October 1984 to September 1985.



A second method of sampling is to use a visitor sign in sheet. This is a much less expensive method requiring only the installation of sign-in boxes, sign-in sheets and periodic checks for data. Considering the amount and type of information desired for this area (see sample sign-in sheet), all the information could be obtained from a sign-in sheet.

This method has some disadvantages that are a little more difficult to correct than the Personal Interview method. The first difficulty is to get as many visitors as possible to sign the sheet. An unattended sign-in sheet will not provide 100 percent participation and may lead to party duplication and other inaccuracies in reporting. This involves a few different areas of bias. General inclination to sign in a visitor contact station, such as a sign-in box varies widely with visitors. This inclination also varies with the visitor's length of stay at the area, increasing with an increased length of stay.

Another practical way to gain visitor information is to use traffic counters. They can be used as a second method in double sampling to gain information on the number of visitors in the recreation area. Traffic counters also have pros and cons. They are a relatively inexpensive method and only require periodic checking after the initial calibration. This calibration is needed to counter bias developed when vehicles leave and return to the area and are counted more than once.

Two other visitor counting methods, besides the traffic counter, worth mentioning are the water flow and door surveys. Both of these methods involve a counting device attached either to the handle of a water faucet or to the doors on the outhouses. The number of times the water is turned on or the number of times the doors close can be correlated to and give an accurate estimation of the total number of visitors to an area.

## II. RECOMMENDED METHODOLOGY

Because of the above considerations, the methods used for the double sampling survey should be a traffic counter and the visitor registration (sign-in) methods. Although the personal interview survey is ideally the best method, money and time factors justify using the visitor registration. The bias encountered with the sign-in boxes can be compensated to provide use figures sufficiently accurate for management purposes. Since Price River Resource Area already has access to a traffic counter and calibration is required with any visitor counting method, the use of the traffic counter will be sufficient for the study.

## III. VISITOR REGISTRATION

Placement of the sign-in boxes should be in an area to promote and encourage sign-in registration of visitors. Current placement does not encourage or even generate interest in registration.

Placement of the boxes should be at a naturally occurring stopping point for vehicles and the discharge of passengers. These places would include water supplies, bathrooms, overlooks, camping spots and picnic areas.

A second method of sampling is to use a visitor sign in the area. This is a much less expensive method requiring only the installation of sign-in boxes, sign-in sheets and periodic checks for data. Considering the amount and type of information desired for this area (sign-in sheets), all the information could be obtained from a sign-in sheet.

This method has some disadvantages that are a little more difficult to correct than the Personal Interview method. The first difficulty is to get as many visitors as possible to sign the sheet. An unattended sign-in sheet will not provide the desired participation and may lead to many distortions and other inaccuracies in reporting. This method is less difficult than the Personal Interview method as it is a visitor contact station, such as a sign-in box, rather than a visitor. This method also varies with the visitor's length of stay at the area, increasing with an increased length of stay.

Another practical way to gain visitor information is to use traffic counters. They can be used as a second method in double counting to gain information on the number of visitors in the recreation area. Traffic counters also have two uses. They are a relatively inexpensive method and they require periodic checking from the initial installation. This information is needed to compare the number of visitors leaving and return to the area and the number of days.

The other major sampling method, besides the traffic counter, is double counting. This method is used in many ways. Both of these methods involve a counting device attached either to the inside of a gate or to the door of the entrance. The number of times the device is turned on or the number of times the device is turned off and given an accurate indication of the total number of visitors to the area.

## 11. PERSONAL INTERVIEW

Because of the more complex nature, the methods used for the double counting method should be a traffic counter and the visitor sign-in sheet. Although the personal interview method is fairly the least expensive, it also has many disadvantages. The first is that it is a time-consuming method using the visitor's time and the interviewer's time. The second is that it is a time-consuming method using the visitor's time and the interviewer's time. The third is that it is a time-consuming method using the visitor's time and the interviewer's time. The fourth is that it is a time-consuming method using the visitor's time and the interviewer's time. The fifth is that it is a time-consuming method using the visitor's time and the interviewer's time. The sixth is that it is a time-consuming method using the visitor's time and the interviewer's time. The seventh is that it is a time-consuming method using the visitor's time and the interviewer's time. The eighth is that it is a time-consuming method using the visitor's time and the interviewer's time. The ninth is that it is a time-consuming method using the visitor's time and the interviewer's time. The tenth is that it is a time-consuming method using the visitor's time and the interviewer's time.

## 12. VISITOR REGISTRATION

Placement of the sign-in boxes should be in an area to provide an accurate sign-in registration as visitors. Current placement and the accuracy of the information is important.

Placement of the boxes should be at a naturally occurring standing point for visitors and the entrance to the area. These areas would include water supplies, bathrooms, viewing areas and picnic areas.



There are three major areas at Price Recreation Area and to ensure maximum contact with visitors a sign-in box should be placed in each area. The three areas are the Group camping and picnic sites, the single unit camp sites and the overlook.

The current placement of the sign-in box at the Group site does attract attention. It effectively gains attention for the upper and middle group areas but the lower area users may not notice the registration box. To ensure sign-in, a sign should be placed at the lower site directing sign-in at the middle area. As an alternative another sign-in box might be placed at the lower area for group and to serve the walk-in sites.

Currently, the single unit overnight campsite area does not have a sign-in box although there is one at the first intersection at the entrance to the Recreation Area. This registration box should be eliminated because there is no inducement to get out of the vehicle at this point. It is very inconvenient to stop and get out of the vehicle because there is not a good turn out and it is on a hill. The accompanying sign can easily be read from the vehicle. A registration box should then be placed in the single unit camp sites by the bathrooms in the middle of the camping area.

The overlook parking area should also have a visitor registration box. This will ensure contact with visitors in every area of Price Recreation Area. The box should be placed at the back of the parking area, near the overlook.

Consult the map for exact placement of the visitor registration boxes in each area.

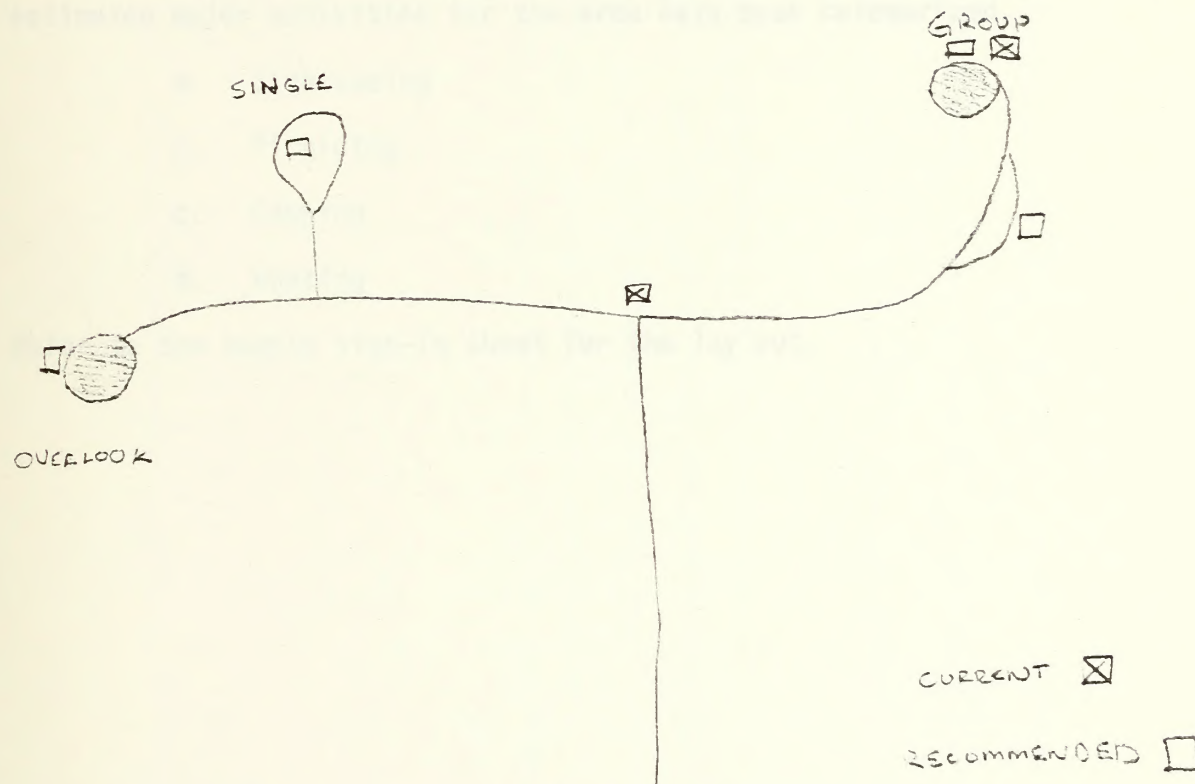
To attract attention and gain interest in the visitor registration boxes an information sign should be placed next to the box to give the visitor a reason to stop, gain information and then subsequently he/she will register.

To attract the visitor to the box a sign indicating visitor registration (i.e., Please Sign-In) should be the minimum. To enhance registration percentages of visitors, the visitor must feel he is gaining something from the action. While all three of the visitor registration boxes can indicate sign-ins, the Group and single unit camp sites may also provide information about the Overlook Trail by showing a map and indicating the trail distance and estimated time of travel. The Overlook area sign may point out special features of the view.





#### IV. VISITOR REGISTRATION PLACEMENT MAP







## V. SIGN-IN INFORMATION

The purpose of the visitor registration sign-in sheet is to not only help gain statistics of the number of visitors at the area for correlation with the traffic counter, but also to gain information about the visitor. Recommended data needed for Price Recreation Area:

1. Date - to establish periods of heavy and low use;
2. City, State - to determine if use is mostly local residents, Utah tourists or out of State tourists;
3. Number in party - for total visitor use data, to correlate figures with the traffic counter results.
4. Length of Stay - hours and days - to not only determine the length of time spent by each party at the recreation area, but also to help eliminate sign-in bias by incorporating a weighting system on the acquired data.
5. Activities - although this is of lowest priority in the study, the estimated major activities for the area have been categorized.
  - a. Sightseeing
  - b. Picnicing
  - c. Camping
  - d. Hunting

Refer to the sample sign-in sheet for the lay out.

The purpose of the visitor registration system is to not only gain statistics of the number of visitors at the area for comparison with the traffic counter, but also to gain information about the visitor. Recommended data needed for the visitor registration area:

1. Date - to establish periods of heavy and low use.
2. City, State - to determine if use is mostly local residents, those tourists or out of state tourists.
3. Number of party - for local visitors and data on corporate figures with the traffic counter results.
4. Purpose of visit - to not only determine the length of time spent in each party at the recreation area, but also to determine if the party is participating in a supervised system on the recreation area.
5. Activities - although this is of lesser priority in the study, the estimated major activities for the area have been categorized.

- a. Swimming
- b. Fishing
- c. Camping
- d. Hunting

Refer to the sample visitor sheet for the layout.









## VII. VISITOR REGISTRATION BIAS ELIMINATION

Because the visitor registration has some inherent problems as a sampling method (mainly getting everyone to sign them) steps will need to be taken to alleviate the visitor sample bias.

As discussed in the visitor registration placement section, natural placement and interesting signing near the boxes will promote participation. But this will not yield 100 percent participation rates. So, the visitor registration data needs to be calibrated to eliminate the resulting bias.

One inherent problem with registration is the tendency of some visitors to sign-in, and of other visitors to not sign-in. This is easily overcome by correlating the traffic counter data of total number of parties visiting the area to the number of parties that signed-in. Then the information from the parties that did sign-in can be extrapolated to the rest of the visitation figures from the traffic counters.

Another similar registration bias that occurs is a length of stay bias. Visitors are much more likely to sign-in the longer they stay at an area. This bias can be reduced by weighting the registration data. The weighting system would determine actual percentages of visitors by different categories of use.

The length of stay of visitors at Price Recreation Area can be broken into three categories as shown by the number of hours or days marked in the appropriate category on the sign-in sheet: 1) daily (no overnight camping), 2) moderate (total of 2 or 3 days spent at the area), and 3) long (more than 3 days spent at the area).

These categories are then weighted according to a fractional system. The category least likely to sign-in will count the most -  $1/1$ . Each successive category that is likely to sign-in, is assigned to successively smaller fraction -  $1/2$ ,  $1/3$ ,  $1/4$ , etc. So, because the daily category is the shortest time of stay, it is the category in which people are least likely to sign in, it is assigned the fraction  $1/1$ . The moderate category is then assigned  $1/2$  and the long category  $1/3$ . The data collected in the category, i.e., total number of parties signed in, is then multiplied by their respective fractions.

Example: Using the three categories for visitor use as described in the Visitor Registration Bias Elimination section, the following data was collected off visitor registration sheets for the number of parties signing in:

Daily - 20  
Moderate - 15  
Long - 10

The traffic counter reading is 200 vehicles (after calibration).

Because the visitor registration has some inherent problems as a result of method (usually getting everyone to sign their name) steps will need to be taken to alleviate the visitor sample bias.

As discussed in the visitor registration placement section, natural placement and interesting viewing near the boat will promote participation. But this will not yield 100 percent participation rates. So, the visitor registration data needs to be calibrated to eliminate the resulting bias.

The inherent problem with registration is the tendency of some visitors to sign, but of other visitors to not sign-in. This is usually overcome by correlating the traffic counter data of total number of visitors visiting the area to the number of parties that signed-in. Then the information from the parties that did sign-in can be extrapolated to the rest of the visitation figure from the traffic counter.

Another visitor registration bias that occurs is a function of site bias. Visitors are more likely to sign-in the longer they stay at an area. This bias can be reduced by weighting the registration data. The weighting system would determine actual percentage of visitors by a factor category of use.

The length of stay of visitors at each observation area can be broken into three categories as shown in the number of hours or days needed to be an appropriate category on the sign-in sheet. It might be deemed as category 1, moderate (about 1/2 or 3 days spent at the area), and 2, long (more than 3 days spent at the area).

These categories are then assigned according to a fractional system. The category least likely to sign-in will count 0.5, the next 1.0, and the category most likely to sign-in will count 1.5. It is desired to successively adjust the fraction - 1.5, 1.0, and 0.5, to account the daily tendency of the number of sign-in at the category. In which means the least likely to sign-in is assigned the fraction 0.5, the moderate category is then assigned 1.0, and the long category is 1.5. The data collected in the category 1.5, long, must be multiplied by 3 to the weighting of their respective fraction.

Example: Using the three categories for visitor use as described in the Visitor Registration and Allocation section, the following data was collected for visitor registration needs for the number of parties signing in:

Day - 25  
 Night - 15  
 Long - 10

The traffic counter reading is 300 vehicles (after calibration).



The sign-in data is weighted as follows:

$$\begin{array}{rcl} \text{Daily} & - 20 \times 1/1 \text{ (or } 1.0) & = 20 \\ \text{Moderate} & - 15 \times 1/2 \text{ (or } 0.5) & = 8 \\ \text{Long} & - 10 \times 1/3 \text{ (or } 0.3) & = 3 \\ & & \hline & & 31 \end{array}$$

Therefore, the percentage of each category is:

$$\begin{array}{rcl} \text{Daily} & - & 64 \text{ percent (20/31)} \\ \text{Moderate} & - & 26 \text{ percent (8/31)} \\ \text{Long} & - & 9.6 \text{ percent (3/31)} \\ & & \hline & & 100 \text{ percent.} \end{array}$$

This data can then be correlated to the traffic counter data. The traffic counter reading was 200. Therefore, approximately 200 parties were at Price Recreation Area. Of these 200 parties:

64 percent were daily use (128 parties)  
26 percent were moderate use (52 parties)  
10 percent were long use (20 parties).

#### VIII. TRAFFIC COUNTER PLACEMENT

Recommended placement of the traffic counter should be on a level stretch of road of at least 100 to 200 feet with the counter placed in the middle of the level stretch (leaving at least 50 feet of level road on each side of the counter, 100 feet is preferred). Placement should not be near the entrance to avoid counting people who just pull in and turn around. Placement should ~~also not~~ be near the intersection (T in the road) to the group sites and the overlook because some people may stop their vehicles before deciding which direction to go.

Recommended sites for the placement of the counter are listed below in mileage from the entrance of Price Recreation Area at the turn off from Highway 6. The sites are listed in order of preference.

1. Mile 1.8 - flat area by slide.
2. Mile 0.3 - close to the cattleguard.
3. Mile 1.1
4. Mile 2.6
5. Mile 3.1 - near the 25 mph speed sign.

If a second counter is used, which is recommended to increase accuracy, the next mileage listed should be utilized.





If the study is continued in subsequent years, the counter should be placed in the same location to ensure reliability of the results.

#### IX. TRAFFIC COUNTER CALIBRATION AND BIAS ELIMINATION

Pneumatic traffic counters record axle count, not vehicle count and so must be calibrated to the kind and number of vehicles at the recreation site. This will involve two processes; first, a determination of the number of times a single vehicle enters and exits the recreation site per day and, second, a determination of the average number of axles per vehicle.

Calibration of the counter will involve establishing various sample days throughout the season. The site must be sampled for a minimum of 12 days for each recreation-use period in which the information is desired. For the Price Recreation Area information is desired for only the summer season so one 12 day sampling set will be sufficient. The sampling days should be picked at random but one-half of the days should be on weekends and holidays and the other half of the sampling days on weekdays.

Randomly select sampling days as follows: On a suitable calendar, number consecutively all weekend days and holidays, and number consecutively all weekdays included within the selected sampling period. For example: for a 4-month recreation use period there will be a weekend holiday sequence numbered from one through approximately 33, and a week day sequence from one through approximately 89. Using a table of random numbers, randomly select 6 weekend days and holidays, and 6 weekdays.

The sample days for the study (for the 1985 season) have not been specified because any randomly selected days that meet the above criteria will be sufficient so the sampling days can be worked into the schedule of the available personnel.

The actual traffic counter calibration requires a person to be stationed at the area for 12 sampling days that are 12 hours long. During this period, the sampler will perform 7 duties as listed below.

1. Record the number of vehicles entering the recreation area.
2. Record the number of vehicles leaving the recreation area.
3. Keep an accurate record of the number of vehicles that exit and return to the recreation area in one 12 hour day.
4. Record the number of axles on each vehicle.
5. Record the number of visitors, as well as possible, in each vehicle entering the recreation area.
6. Record the number of parties that registered at the sign-in boxes at the end of each sample day.

1. The study is designed to determine the counter should be placed in the same location to ensure reliability of the results.

## IX. TRAFFIC COUNTER CALIBRATION AND BIAS ELIMINATION

Automatic traffic counters record all counts, but vehicle count and speed are calibrated to the time and number of vehicles at the observation site. This will involve the process of first, a determination of the number of lanes a single vehicle enters and exits the observation site per day, second, a determination of the average number of vehicles per vehicle.

Calibration of the counter will involve establishing various sample days throughout the season. The site will be sampled for a minimum of 15 days for each direction and period in which the observation is desired. For each period, a set of information is needed for only the sample counts on the 15 day sampling period will be sufficient. The sampling days should be placed at random and should be the same number as the number of vehicles and the other half of the sampling day on weekdays.

However, before sampling days are chosen, the counter should be calibrated. This will involve the process of first, a determination of the number of lanes a single vehicle enters and exits the observation site per day, second, a determination of the average number of vehicles per vehicle. This will involve the process of first, a determination of the number of lanes a single vehicle enters and exits the observation site per day, second, a determination of the average number of vehicles per vehicle.

The sample days for the study (for the 15 day period) have not been specified because they will be selected after the counter has been calibrated. The counter will be calibrated by the process of first, a determination of the number of lanes a single vehicle enters and exits the observation site per day, second, a determination of the average number of vehicles per vehicle.

The manual traffic counter calibration requires a person to be present at the site for 15 minutes per day for 15 days. During this period, the counter will be calibrated by the process of first, a determination of the number of lanes a single vehicle enters and exits the observation site per day, second, a determination of the average number of vehicles per vehicle.

1. Record the number of vehicles entering the observation area.

2. Record the number of vehicles leaving the observation area.

3. Record the number of vehicles entering the observation area.

Return to the observation area in the 15 day period.

4. Record the number of vehicles entering the observation area.

5. Record the number of vehicles entering the observation area.

6. Record the number of vehicles entering the observation area.



7. Record the traffic counter meter readings at the same time each sample day, i.e., 0900 hours.

It is highly important that all and only the 12 randomly selected days be sampled. Sampling on less than 12 days will usually increase the error terms and may well invalidate the entire sample. Substitution must not be made for any reason. To do so would introduce bias which cannot be quantified. It is preferable to knowingly accept increased, but measurable, error terms.

For the rest of the recreation-use season, periodic readings of the traffic counters will be required to make sure the counter is continuing to function properly.

#### X. TRAFFIC COUNTER RESULTS

The data collected from the traffic counters on the sample days may then be used as averages for the entire recreation-use season.

From the information gathered by the sampler the following results may be derived:

1. From the total number of return visits by the same vehicle in one sample day, calculate the average number of vehicles that leave and return to the area to find the adjusted total number of vehicles, subtract the number of return vehicles from the total number of vehicles counter.

$$\text{Vehicles Counted} - \text{Return Vehicles} = \text{Adjusted Total Vehicles}$$

2. Calculate the average number of axles per vehicle from the total number of observed and the total axle count on the traffic counter. Axles observed divided by the total number of vehicles observed equals the average number of axles per vehicle. Then divide the average number of axles per vehicle into the total number of axles counted on the traffic counter for the total number of vehicles at the recreation site.

$$\begin{aligned} \text{Axles Observed} - \text{Vehicles Counted} &= \text{Average Axles/Vehicle} \\ \text{Axles Recorded} - \text{Average Axles/Vehicles} &= \text{Total Number of Vehicles} \end{aligned}$$

3. Calculate the average number of people per vehicle from the number of people counted in each vehicle on the sample days. Total number of people counted divided by the total number of vehicles equals the average number of people per vehicle.

$$\text{Total of Vehicle Passengers} - \text{Vehicles Counted} = \text{Average Passengers/Vehicles}$$

4. Correlate the number of people counted in the vehicles to the number of people registered on the visitor registration. Correlate the number of vehicles to the number of parties that registered.

1. Record the traffic counter after counting at the same time each

sample day, i.e., 0800 hours.

It is highly important that all sample days be 15 randomly selected days in sample. Sampling on less than 15 days will result in biased the entire sample and will invalidate the entire sample. Justification must be given for any reason. To do so would introduce bias which cannot be quantified. It is preferable to knowingly record incorrect, but acceptable, error than

For the rest of the investigation use random, periodic readings of the traffic counter will be required to make sure the counter is continuing to function properly.

## 2. TRAFFIC COUNTER RESULTS

The data collected from the traffic counter on the sample days may then be used as averages for the entire investigation period.

From the information obtained by the sample the following results may be derived:

1. From the total number of vehicle stops in the sample days, the total number of vehicles in the sample days may be determined. The average number of vehicles in the sample days may be determined by dividing the total number of vehicles by the number of sample days. This will give the average number of vehicles in the sample days.

Vehicle Counted = Number of Vehicles = Sample Days

2. Calculate the average number of vehicles per vehicle from the total number of vehicles and the total sample count as the traffic counter. After dividing the total number of vehicles by the total number of sample days, the average number of vehicles per vehicle may be determined. This will give the average number of vehicles per vehicle from the total number of vehicles counted on the traffic counter for the total number of vehicles in the investigation area.

Average Counted = Vehicle Counted = Average Vehicle  
Vehicle Counted = Vehicle Counted = Total Number of Vehicles

3. Calculate the average number of people per vehicle from the number of people counted in each vehicle on the sample days. Total number of people counted divided by the total number of vehicles results the average number of people per vehicle.

Total of Vehicle Passengers = Vehicle Counted = Average Passenger/Vehicle

4. Convert the number of people counted in the vehicle to the number of people registered on the vehicle registration. Calculate the number of vehicles to the number of people that registered.



## XI. CORRELATION

The data collected from the two sampling methods can be correlated to determine total use figures after the bias elimination procedures have been implemented.

The correlations between the traffic counter and the visitor registration will not be exact because of sampling error but the relationship and estimates derived may be used if the error between the two surveys is less than 25 percent.

Of course some judgement will need to be used in assessing the study results.

If the collected data from the two samples has a variation within an acceptable range then it may be used to begin a data base of information for Price Canyon Recreation Area.

*Robert A. DelVedico*

The data collected from the two sampling methods are as summarized in  
 Table 1. The data show that the two methods are in good agreement.

The correlation between the two methods is high and the standard deviation  
 is low. This indicates that the two methods are in good agreement and the  
 results are reliable. The correlation coefficient is 0.95.

Of course some judgment will need to be used in interpreting the above  
 results.

If the collected data from the two methods are a reflection of the  
 actual situation, then it may be said that the two methods are in good  
 agreement.

*[Handwritten signature]*



QUESTIONS AND ANSWERS  
DESOLATION/GRAY CANYONS

A. ABOUT THE CANYONS

1. WHERE IS DRINKING WATER AVAILABLE ALONG THE RIVER?

Running water is generally available at Flat Canyon, Rock Creek, Range Creek, Chandler Canyon, Florence Creek, and sometimes at Jack Canyon. The water quality in Jack Creek is questionable. All sources should be treated. During dry years and sometimes in later summer, Flat Canyon will be dry at the mouth. Water can be found by walking up the canyon about 1 to 2 miles. Good springs are available in a forked side canyon near the second camp around Peters Point, at Dripping Springs, at the south end of Trail Canyon Bottom, and at McPherson Ranch. It should be emphasized that good water quality data is not available for these sites.

2. WHAT ARE THE MAJOR RAPIDS AND THEIR SCOUT LOCATIONS?

The character and appearance of a rapid changes to one degree or another as river flow changes. The distance above a rapid that one should stop in order to scout also varies with water level. With higher water the current moves faster, so it is wise to start for shore sooner to ensure adequate time and distance both to pull over and scout a rapid and then to position the boat to enter the rapid (after scouting). Where the vegetation along the river bank is dense, there are generally breaks in the vegetation and spur trails where people have been stopping to scout. Any rapid could be scouted but the following information covers only those which are commonly considered major.

Steer Ridge (also called Melvin Falls) - scout using the river trail on the left. This rapid is recognizable by the large log jam at its head. To scout, most people pull in above the bend in the river and before, or just as, the log jam is visible. The river makes a left hand turn.

Joe Hutch Creek - scout using the river bank on the left. At low water you can walk over the rocks while at high water you walk along the first above the riverbed, or scout from the island just above the rapid. The river runs through a series of large boulders or holes.

Three Fords - scout using the river trail on the right. This rapid is sometimes also referred to as McPhersons Rapid. To scout, most people stop just below Wire Fence Rapid. The river makes a left hand turn.





Coal Creek - scout using the river trail on the right. To scout, most people stop at one of the breaks in the tamarisk once Coal Creek Canyon is visible and before the first right hand turn into the rapid. The river makes an "S" turn.

Rattlesnake - scout by walking down river along the first terrace along the right hand river bank. To scout, most people stop in the large eddie just above the rapid. The river makes a left hand turn. There are large boulders at the base of the rapid.

### 3. WHAT ARE THE MORE COMMON STOPS ALONG THE RIVER?

Gold Hold (lower) - to see the iron prowed skiff (Indian land).

Rock House Canyon - to see the petroglyph below the big rock fin at the canyon mouth.

Peters Point (first camp) - to see the turtle fossil.

Firewater Canyon - to see the riverview house, some also to see the boot-legger's cabin (Indian land).

Flat Canyon - to see petroglyphs.

Rock Creek - to get water, to play in the creek, to hike, to see the historic ranch (ranch on private land). NO CAMPING.

Three Canyon - to see the cowboy register.

Chandler Canyon - to see the "DJ" inscription and petroglyphs, to see historical structures, to see other Fremont sites, to get water (Indian land).

McPherson's Ranch (Florence Creek) - to see historical structures and petroglyphs, to get water (Indian land).

Coal Creek Bottom - to see historical structures.

Price River - to see petroglyphs.

### 4. WHAT HIKING OPPORTUNITIES ARE AVAILABLE?

Rock House Canyon - to a fossil panel about 2 miles up from the river; not too showy.

Peters Point (second camp) - short hike to the springs in the side canyon just downstream; 1/4 mile.

Jack Creek - side canyons leading north off Jack Creek display massive red rock pinnacles and amphitheaters; 1-3 miles.

Coal Creek - scout using the river trail on the right. To scout, most people stop at one of the breaks in the tamarisk once Coal Creek Canyon is visible and before the first right hand turn into the rapid. The river makes an "S" turn.

Rattlesnake - scout by waiting down river along the first terrace along the right hand river bank. To scout, most people stop in the large white just above the rapid. The river makes a left hand turn. There are large boulders at the base of the rapid.

### 3. WHAT ARE THE MORE COMMON STOPS ALONG THE RIVER?

Gold Hole (lower) - to see the iron pyrite (Indian land).

Rock House Canyon - to see the petroglyph below the big rock fin at the canyon mouth.

Peters Point (first camp) - to see the turtle fossil.

Fiverstar Canyon - to see the riverine house, some also to see the boat-jagger's cabin (Indian land).

Flat Canyon - to see petroglyphs.

Rock Creek - to get water, to play in the creek, to hike, to see the historic ranch (ranch on private land). NO CAMPING.

Three Canyon - to see the cowboy register.

Chandler Canyon - to see the "BU" inscription and petroglyphs, to see historical structures, to see other Fremont sites, to get water (Indian land).

McIntosh's Ranch (Florence Creek) - to see historical structures and petroglyphs, to get water (Indian land).

Coal Creek bottom - to see historical structures.

Price River - to see petroglyphs.

### 4. WHAT HIKING OPPORTUNITIES ARE AVAILABLE?

Rock House Canyon - to a fossil point about 2 miles up from the river; not too steep.

Peters Point (second camp) - short hike to the spring in the side canyon just downstream; 1/4 mile.

Jack Creek - side canyon leading north off Jack Creek; display massive red rock pinnacles and spires; 1-2 miles.



Firewater Canyon - left hand canyon to the bootlegger's cabin; 1/2 mile (Indian land); right hand canyon to the river view house; 1/2 mile (Indian land).

Cedar Ridge Canyon - scenic red rock side canyon; short hikes.

Flat Canyon - good canyon for extended hikes; long drainage with multiple forks; live water and waterfalls; vegetation change to higher elevation types - to Cathedral Door Arch; about 2 miles.

Flat Canyon to Long Bottom - river trail on the west climbs up to circumvent a cliff; about 1 mile.

Dripping Springs - short hike to a scenic spring in the canyon wall; visible from the river; difficult to reach at low water; 1/4 mile (Indian land).

Steer Ridge to Rock Creek - river trail on the west climbs about 1/3 up the canyon wall; scenic views; 1-1/2 miles.

Rock Creek - good canyon for extended hikes; long drainage with multiple forks; live water and waterfalls; vegetation change to higher elevation types (more gradual than Flat Canyon); to the large petroglyph panel; 2 miles; to the overlook at the confluence, north wall; 1/2 mile.

Calf Canyon - to a small waterfall; 1.5 miles; wear long pants.

Three Canyon to Lion Hollow - river trail on the west climbs up to circumvent cliffs; scenic views of narrow, high-walled river canyon; 1-1/2 miles.

Lion Hollow - trail follows north side of the canyon wall over several rocky plugs across the drainage and then up around narrow canyon twists and pouroffs; some water; trail condition is poor and requires scrambling; 1-1/2 to 2-1/2 miles.

Three Fords Canyon West - up to Last Chance Benches and view of the Roan Cliffs; 1-1/2 miles.

Spring Wash Canyon - up the canyon to small pools and pouroffs; 1-1/2 miles (Indian land).

Golden Stairs - up a steep draw breaking the cliff then turn right to expansive views of the Roan Cliffs; 1/2 to 1 mile.

Coal Creek - possibility for extended hikes; long drainage; vegetation and elevation change occur slowly until near the canyon head; some water.

School Section Canyon - across from Rattlesnake Canyon, this narrow, steep walled canyon can be hiked as part of a loop using a trail along its north rim; resident Great Horned Owl; 2 mile loop.





Rattlesnake Canyon - possibility for extended hikes; historical and geologic (arches, remnants, etc.) features of interest at distances of 2 or more miles from the river; heavily impacted by grazing. The lower section of the canyon has pleasant walking with 100 foot overhanging sides and seeps. Returning via the north rim of this lower section on an old stock trail affords views of Rattlesnake and the Green River (3 miles round trip).

#### 5. WHAT IS THE DIVERSION DAM LIKE?

Some people do run the diversion dam, usually in the center or just left of center. It should be scouted from shore first. A road reaches the river just above the dam on the west side. Groups can take out there if they decide not to run the dam. The face of the dam is sloped so that it is not a direct drop but the dam does form a semetrical reversal (hazardous) along most of its length at most water levels. There really is not a good portage especially at low water levels. DO NOT attempt to run the dam on the west side where water is pulled into a diversion canal and pumphouse. Portage on private land on river left.

#### B. ENVIRONMENT

##### 1. WHAT WILL THE WEATHER BE LIKE?

It does snow here in the winter. The river has been known to freeze over in places during the winter.

Springtime weather is changeable. Plan on anything from snow, rain and cold nights, to warm sunny days.

Summers of course, can get very hot. Thunderstorms are most common in late summer, but can occur anytime of year. Thunderheads can build in a matter of hours and produce heavy rain and flash floods.

Fall can also be unpredictable with early snow storms or Indian summers.

The following temperature averages and extremes (degree F) are for Green River, Utah (elevation 4,060 feet):

	Average Max - Min	Extreme Max - Min
April	69 - 35	95 - 9
May	79 - 44	101 - 23
June	90 - 52	110 - 30
July	96 - 60	112 - 41
August	93 - 57	108 - 39
September	85 - 46	107 - 25
October	71 - 35	92 - 10

Rattlesnake Canyon - possibility for extended hiking, historical and geologic (arches, remnants, etc.) features of interest at distances of 2 or more miles from the river; heavily timbered by grazing. The lower section of the canyon has pleasant walking with 100 foot overhanging sides and steep. Remaining via the north rim of this lower section on an old stock trail affords views of Rattlesnake and the Green River (2 miles round trip).

## 2. WHAT IS THE DIVERSION DAM LIKE?

Some people do run the diversion dam, usually in the center or just left of center. It should be secured from above first. A road reaches the river just above the dam on the west side. Groups can take out there if they decide not to run the dam. The face of the dam is sloped so that it is not a direct drop but the dam does form a somewhat irregular (irregular) along most of its length at most water levels. There really is not a good place especially at low water levels. DO NOT attempt to run the dam on the west side where water is pulled into a diversion canal and pump house. Forage on private land on river left.

## 3. ENVIRONMENT

### 1. WHAT WILL THE WEATHER BE LIKE?

It does snow here in the winter. The river has been known to freeze over in places during the winter.

Springtime weather is changeable. Plan on anything from snow, rain and cold nights, to warm sunny days.

Summers of course, can get very hot. Thunderstorms are most common in late summer, but can occur anytime of year. Thunderstorms can build in a matter of hours and produce heavy rain and flash floods.

Fall can also be unpredictable with early snow storms or Indian summers.

The following temperature averages and extremes (degrees F) are for Green River, Utah (elevation 4,000 feet):

Month	Average Max - Min	Extreme Max - Min
April	59 - 35	92 - 9
May	78 - 44	107 - 23
June	80 - 55	110 - 30
July	86 - 60	115 - 47
August	83 - 67	108 - 35
September	85 - 60	107 - 25
October	77 - 35	92 - 10



## 2. WHAT WILL THE RIVER BE FLOWING?

Average cubic feet per second at Green River, Utah for the period 1961-1980:

January	-	3,220
February	-	3,783
March	-	4,410
April	-	6,280
May	-	12,259
June	-	14,557
July	-	6,100
August	-	3,327
September	-	2,906
October	-	3,100
November	-	3,267
December	-	3,126

Peak flows:

1980	-	24,200 cfs,	May 27
1982	-	12,300 cfs,	June 8
1982	-	20,800 cfs,	May 8
1983	-	44,800 cfs,	June 27
1984	-	48,300 cfs,	May 20
1985	-	26,000 cfs,	May 12
1986	-	35,400 cfs,	June 10

Maximum flow on record:

68,100 cfs, June 27, 1917

For recorded river flow information, call the National Weather Service, Colorado Basin River Forecast Center in Salt Lake City, Utah, at 801-539-1311. The recording is updated daily giving current flows and a 3-day forecast.

## 3. WHAT WATER TEMPERATURE CAN BE EXPECTED IN THE GREEN RIVER?

Average water temperatures (degree F) in the river at Green River, Utah for the period 1976 to 1984:

October	57 degrees
November	42 degrees
December	36 degrees
January	36 degrees
February	37 degrees
March	44 degrees
April	54 degrees
May	60 degrees
June	67 degrees
July	76 degrees
August	75 degrees
September	67 degrees





#### 4. WHY IS CHARCOAL CARRYOUT REQUIRED? FIREPANS?

Safety - To contain the fire and coals and keep them away from flammable vegetation.

Environment - To eliminate fire pits, charcoal strewn beaches, blackened rocks, scorched sand and soil and other fire pit refuse. Charcoal litter will not decompose in the desert environment and will remain on the beaches and in the campsites until it is removed by high water or cleanup.

Courtesy - To leave the campsite as you found it for those who follows.

#### 5. HOW SHOULD LIQUID WASTE (DISHWATER, URINE, ETC.) BE HANDLED?

The best place for liquid waste in Desolation and Gray Canyons is in the Green River. There are several reasons for this:

- a. On land, biological breakdown in this type of desert environment occurs very slowly so residues of these liquids would linger on land.
- b. Depositing these liquids on land may promote unhealthy bacterial growth and scavenging animals and ants at heavily used sites.
- c. Biological breakdown is much more active in the river.
- d. These liquids are quickly diluted by the considerably larger volumes of moving water in the river.
- e. Dilution will occur to such a degree that there will be no significant change in the chemical or water quality characteristics of the river.

NOTE: These liquids should not be introduced into clearwater streams because they will adversely affect chemical parameters, water quality and fish habitat. Where it is not practical to place these liquids directly in the Green River they should be deposited in wet sand at the rivers edge.

#### 6. WHY IS IT IMPORTANT TO CARRY OUT HUMAN WASTE?

With the number of people that go through Desolation and Gray Canyons each year and the number of campsites that are repeatedly used both aesthetics and public health would be affected if it was not. In addition, this could help attract varmints into the campsites. Carryout avoids these problems.

#### 7. WHERE SHOULD SOMEONE LEAVE THEIR HUMAN WASTE? TRASH?

We can provide maps showing the location of the human waste barrels at Swaseys Rapid. Trash should be hauled away.





### C. PERMITTING REQUIREMENTS

#### 1. WHEN IS A NONPAYING PASSENGER ON A COMMERCIAL TRIP COUNTED AS CREW?

When he/she will be acting as an employee of the commercial outfitter by being a guide, swamper, cook, outside expert, trainee, etc.

All crew members should be listed on the trip affidavit/notification form.

#### 2. HOW MANY LAUNCHES ARE THERE PER DAY?

A maximum of 6 is the norm, usually 3 commercial and 3 noncommercial. Launches are sometimes swapped between the commercial and the noncommercial calendars. In addition, there are designated low use periods when fewer launches are permitted. For noncommercial applicants low use is before May 15 and after August 15. For commercial users, low use includes 1986 dates before May 17, from May 21 to May 23, from August 6 to August 8, from August 14 to August 16 and after September 1. These commercial dates occur one calendar day earlier each year. During a low use only one launch each commercial and noncommercial is scheduled per day.

#### 3. WHEN ARE PRIVATE PERMITS REQUIRED?

Anytime. The lottery drawing covers launches between May 1 and September 30. During the rest of the year launches are easy to obtain and no fee is required.

#### 4. WHEN SHOULD SOMEONE APPLY TO BE INCLUDED IN THE LOTTERY DRAWING FOR A NONCOMMERCIAL LAUNCH?

Between January 1 and March 1. The lottery drawing is usually held in the first or second week of March.

#### 5. WHAT KINDS OF LIFE JACKETS CAN BE USED?

The Stearns pamphlet has a good explanation of the different life jacket types. See also the Coast Guard sheet on the serviceability of Type I jackets. Check the Coast Guard approval stamp on the inside of any jacket if you have any doubt. Some Type III jackets look like Type Vs. The Coast Guard stamp will be on all jackets approved for wear.

Commercial passengers ..... Type I or Type V  
Commercial guides ..... Type I, Type III or Type V

Noncommercial ..... Type I, Type III or Type V

Children under 90 pounds (all) ..... Children's jacket

Commercial ..... Type I or Type V  
Noncommercial ..... Type I, Type III or Type V

## C. PERMITTING REQUIREMENTS

1. WHEN IS A NONPAYING PASSENGER ON A COMMERCIAL TRIP COUNTED AS CREW?

When he/she will be acting as an employee of the commercial outfit by being a guide, swimmer, cook, outside expert, trainer, etc.

All crew members should be listed on the trip affidavit/notification form.

2. HOW MANY LAUNCHES ARE THERE PER DAY?

A maximum of 6 is the norm, usually 3 commercial and 3 noncommercial. Launches are sometimes swapped between the commercial and the noncommercial calendar. In addition, there are designated low use periods when fewer launches are permitted. For noncommercial applicants low use is before May 15 and after August 15. For commercial users, low use includes 1985 dates before May 17, from May 21 to May 23, from August 6 to August 8, from August 14 to August 16 and after September 1. These commercial dates occur one calendar day earlier each year. During a low use only one launch each commercial and noncommercial is scheduled per day.

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Commercial passengers ..... Type I or Type V  
Commercial guides ..... Type I, Type III or Type V

Noncommercial ..... Type II, Type III or Type V

Children under 20 pounds (all) ..... Children's  
Jacket

Commercial ..... Type I or Type V  
Noncommercial ..... Type I, Type III or Type V



Type I life jackets should be checked for hard or heavy chambers and major air leaks in chambers. The ties or straps and buckles should also be checked. Major tears or holes in the fabric may also make the jacket unserviceable if the flotation chambers are not longer secure.

Type II life jackets (horse collars) are NOT LEGAL to use in Desolation and Gray Canyons under the Utah State Boating Act.

Type III life jackets should be checked for general condition including ties, buckles, straps, zippers, snaps, and fabric.

Type IVs are throwable flotation devices and are required for all boats over 16 feet in length. A throw rope (minimum 40 feet) may satisfy this requirement under State law.

Type V life jackets should be checked for general condition including straps, buckles, and fabric.

#### 6. WHEN MUST A LIFE JACKET BE WORN?

Children under 12 must wear a PFD at all times on the river.

Everyone must wear a Coast Guard approved life jacket between Jack Creek and the diversion dam (river mile 8.6).

State designated flat water extends from Ouray past Sand Wash to Jack Creek and from below the diversion dam to Cataract Canyon. Although it is a good idea to wear a life jacket at all times on the river, adults are not required to wear them on designated flat water, under State law.

#### 7. WHERE CAN YOU CAMP AT ROCK CREEK?

NO camping, fires, etc., are allowed within 1/4 miles of the mouth of Rock Creek on the west side of the river. From the mouth of the creek downstream about 3/4 mile is private land (T.N. Jensen - Price). Permission should be obtained from the owners to camp on private land. Rock Creek is open to day use.

#### 8. WHEN IS A FIRE EXTINGUISHER REQUIRED?

Usually anytime a motor is used. See also the Utah State Boating Act.

### D. GENERAL

#### 1. WHAT ABOUT THE INDIAN RESERVATION?

The Uintah Valley Reservation was established in 1865. About 1880, the White River and Uncompahgre bands were added to the Uintah band here, and the name changed to the Uintah and Ouray Reservation. In 1941 the Hill Creek Extension was added to the reservation.

Type I life jackets should be checked for hard or heavy chambers and major air leaks in chambers. The ties on straps and buckles should also be checked. Major tears or holes in the fabric may also make the jacket unserviceable. If the flotation chambers are not longer secure.

Type II life jackets (horse collars) are NOT LEGAL to use in flotation and Gray Canyon under the Utah State Boating Act.

Type III life jackets should be checked for general condition including ties, buckles, straps, zippers, snaps, and fabric.

Type IVs are throwables. Flotation devices and are required for all boats over 16 feet in length. A throw rope (minimum 40 feet) may satisfy this requirement under State law.

Type V life jackets should be checked for general condition including straps, buckles, and fabric.

#### 6. WHEN MUST A LIFE JACKET BE WORN?

Children under 16 must wear a PFD at all times on the river.

Everyone must wear a Coast Guard approved life jacket between Jack Creek and the diversion dam (river mile 8.5).

State designated flat water extends from Quarry past Sand Wash to Jack Creek and from below the diversion dam to Cataract Canyon. Although it is a good idea to wear a life jacket at all times on the river, adults are not required to wear them on designated flat water, under State law.

#### 7. WHERE CAN YOU CAMP AT ROCK CREEK?

All camping, fires, etc., are allowed within 1/4 mile of the mouth of Rock Creek on the west side of the river. From the mouth of the creek downstream about 3 1/2 miles is private land (T.M. Jensen - Price). Permission should be obtained from the owner to camp on private land. Rock Creek is open to day use.

#### 8. WHEN IS A FIRE EXTINGUISHER REQUIRED?

Usually anytime a motor is used. See also the Utah State Boating Act.

#### D. GENERAL

#### 1. WHAT ABOUT THE INDIAN RESERVATION?

The Uintah Valley Reservation was established in 1885. About 1880, the White River and Uncompaghe bands were added to the Uintah band here, and the name changed to the Uintah and Ouray Reservation. In 1947 the Hiji Creek Extension was added to the reservation.



Operations at Florence Creek lodge by the Ute Trails and Rivers Enterprises were abandoned in 1977.

Along the Green River, the Reservation extends from the upper Gold Hole to Coal Creek on the east side. Camping, fishing, or hunting permits are required to use Indian Land. Contact the Uintah Ouray Tribal Office in Fort Duchesne, Utah.

2. WHAT IS THE WRINKLE ROAD/NINE MILE CANYON ROUTE TO WELLINGTON LIKE?

It is very changeable depending on weather and rough in spots under the best conditions. It is not recommended for low clearance vehicles. It is a bit shorter in miles for those enroute to Green River, but it is likely to save no more than 1/2 hour in daylight hours with good road conditions. It is very scenic. It is not recommended for night driving. Do not give any assurances or guarantees to anyone taking this route.

3. WHAT ARE THE HOLES IN THE CLIFFS AT SAND WASH?

See the Sand Wash Trail pamphlet.

4. WHAT IS THE HISTORY BEHIND THE BUILDINGS AT SAND WASH?

See the Sand Wash Trail pamphlet.

5. WHAT IS A WSA?

A WSA is a Wilderness Study Area. It is an area with clearly defined boundaries that is under study as required by Congress (Federal Land Policy and Management Act (FLPMA, 1976), Wilderness Act (1964)) to determine its suitability for designation as wilderness. These areas are being managed so as to preserve their potential for designation until Congress decides whether they will be designated.

Desolation Canyon is a WSA, the States largest at 289,650 acres. From the river, its north boundary is crossed at about Rock House Canyon. North of this is the Naval Oil Shale Reserve Withdrawal. The WSA is the west side of the river until Coal Creek and then on both sides of the river until Swaseys Rapid/Gunnison Butte. Portions of the area along the Nefertiti road are not included in the WSA.





Bureau of Land Management  
Desolation/Gray Canyons  
P.O. Drawer AB  
Price, Utah 84501

Stamp

Name & Mailing Address

## NOTICE CARD

P - \_\_\_\_\_

### Desolation/Gray Canyons River Permit Lottery Results

- ☐ You drew a launch of \_\_\_\_\_
  - ☐ You did not draw your preferred launch date.
- 
- ☐ Please pay a fee of \$7.50 per person no later than three weeks before your launch.

### RETURN THIS CARD WITH YOUR PAYMENT

- ☐ You may contact this office for launches which are still available or to be placed on the waiting list at (801) 637-4584 or P.O. Drawer AB, Price, Utah 84501





## CHARCOAL CARRY OUT METHODS

1. If you have a fire in the evening, but not in the morning, and the ashes and charcoal are cool, simply empty the fire pan into your garbage bag (or toilet) when you break camp in the morning.
2. Some people use an ammo can and save the ash and charcoal to reburn the next night.
3. If you have a fire in the morning or the ash and coals are still warm, you might try the "sinkers and floaters" system.
  - a. Use a shovel or utensil to empty the contents of the fire pan, by stages, into a bail bucket of water.
  - b. Skim the pieces which float off the top of the water and put them in your garbage bag, toilet, or ammo can.
  - c. Continue with Steps a and b until the fire pan is empty.
  - d. Dump out the bail bucket in the main current of the river, not in eddies or close to the shore line.

Charcoal carryout is simple and does not require any unusual equipment. It has the advantage of keeping odors suppressed and beaches free of charcoal.





Meeting Number: 1

Meeting Number: 1

My rule will be:

1. Record the
2. Name the
3. Show the
4. Present the
5. Read the

I will participate in discussion but not in formal voting

please do the same

Agenda:

1. What do we want to achieve?
2. What are the objectives of the organization?
3. What are the goals and objectives of the organization?
4. How should we measure our progress?
5. How should we evaluate our performance?
6. How should we allocate resources?
7. How should we manage our budget?

## APPENDIX I





- Meeting Goals:**
- 1) To arrive at a consensus on how to evaluate the recreation program among the offices in your district.
  - 2) To generate ideas on what things could be done better in the recreation program in your district and statewide (now).
  - 3) To generate ideas concerning the direction recreation management in Utah ought to take, given present constraints (future).

**Meeting Format:** This meeting is your meeting is your meeting. My role will be to:

1. Record your ideas
2. Keep the meeting focused on the meeting goals
3. Encourage participation
4. Promote clarification of ideas
5. Push for consensus

I may occasionally suggest ideas that seem appropriate to the discussion but they do not need to be accepted by the group. What format would you prefer?

possibilities: open discussion, alternating input by each individual or some other format

**Agenda:**

1. Work on Goal No. 1

- a. What are the major jobs that should be considered in evaluating the program?
- b. What are good, measurable indicators of the job to be done or its significance? (Not of how the job is handled)
- c. Narrow the group of indicators down to 10 or fewer. Should indicators of the job itself and those concerning its significance be handled separately?
- d. How should the indicators be ranked against each other (point assignment)?
- e. What data should be used? Yearly submissions to USO for PLS? What standards or definitions should be used?
- f. Issue discussion.  
Base program concept? Is objective information, organized as you have developed it, useful in budgeting and position management? How should it be used in budgeting? in position management? for extensive RMAs?





## IDEAS FOR INDICATORS

- Number of discreet authorizations
- Number of public land users
- Number of administrative units
- Amount of use
- Periodicity of use
- Size of the affected area
- Degree of presence of a resource
- Evidence of investment in the current management approach
- Evidence of special significance
- Capital investment that is BLM's responsibility
- Measurable effect of management on public safety or welfare
- Amount of unauthorized use

## STANDARDS FOR INDICATORS

- Indicators are related to a major workload
- Data is readily available or easily generated
- Data can be consistently developed
- Indicators allow for objective measurement
- Indicators are resistant to attempts to inflate or deflate
- Indicators address the job to be done, not how it is done

## MEETING GUIDELINES

- Be respectful and courteous to others
- Keep a positive, solution-oriented tone on the meeting
- Discuss issues forcefully but not personally
- Avoid disparaging remarks about colleagues or the BLM
- Take time to affirm good ideas
- Disagree without disdain
- Listen to others and clarify ideas when engaging an issue
- Avoid side conversations
- Maintain flexibility
- Keep a sense of humor





2. Work on Goal No. 2--What can we do to improve now?

a. What could the resource area and district recreation planners do to work better as a team? Do resource areas share personnel and equipment for some recreation work efforts now?

b. What does the district office do to support the resource areas in adjusting to diminishing budgets? What else could be done? Does the district ask for help from other districts when it would help accomplish seasonal or important workloads?

c. What does the state office do to support the field in adjusting to diminishing budgets? What else could be done?

d. Should some of the work we do be eliminated in response to reduced budgets and capability? which tasks?

3. Work on Goal No. 3--What longer term changes should Utah work toward in order to meet the recreation workload under diminishing budgets?

a. Should the state office reduce expenditures and confine itself more to policy or should it become more involved in quality control (monitoring) and operational tasks?

b. Should districts reduce expenditures and confine efforts more to monitoring budgets, accomplishments and plans or should they increase their review of, and involvement in, operational tasks?

c. Should funding at the resource area level be reduced by sharing area staffs and positions? Should each resource areas have a recreation planner? Should 1, 2 or 3 lead resource areas cover the recreation program for a district? Should more recreation technicians be used? more seasonal or PPT positions?

d. Should more details (shared use of a position) occur? At what office levels and under what conditions?

4. Review and check For Consensus

5. Meeting Evaluation





# RECREATION ANALYSIS FOR SALT LAKE

How many RMAs will be analyzed (up to 5)? 5

## WORKLOAD

## POINTS

### 1. VISITS--Number of people

Over 25,000	17
20,001 to 25,000	15
17,501 to 20,000	13
15,001 to 17,500	11
12,501 to 15,000	9
10,001 to 12,500	7
7501 to 10,000	5
5001 to 7500	3
2501 to 5000	2
Fewer than 2500	1

### 2. VISITOR DAYS--length of stay

Over 250,000	17
225,001 to 250,000	15
200,001 to 225,000	13
175,001 to 200,000	11
150,001 to 175,000	9
125,001 to 150,000	7
100,001 to 125,000	5
50,001 to 100,000	3
25,001 to 50,000	2
Fewer than 25,000	1

### 3. COMPETITIVE PERMITS

14 or more	15
12 or 13	13
10 or 11	11
8 or 9	9
6 or 7	7
5 permits	5
4 permits	4
3 permits	3
2 permits	2
1 permit	1
No permits	0





#### 4. FACILITIES INVESTMENT-Replacement Value

Over \$75,000	13
\$67,001 to \$75,000	11
\$58,001 to \$67,000	9
\$50,001 to \$58,000	7
\$42,001 to \$50,000	6
\$34,001 to \$42,000	5
\$26,001 to \$34,000	4
\$18,001 to \$26,000	3
\$10,001 to \$18,000	2
Less than \$10,000	1

#### 5. PRESENCE OF DEVELOPED FACILITIES

Tables, fire grates, water, toilet and trash collection..	5
4 of the above	4
3 of the above	3
2 of the above	2
1 of the above	1
None of the above	0

#### 6. CAMPING UNITS

Over 16	8
15 or 16	7
13 or 14	6
11 or 12	5
9 or 10	4
7 or 8	3
5 or 6	2
1 to 4	1
None	0

#### 7. NONCOMMERCIAL PERMITS

8 permits	6
7 permits	7
6 permits	6
5 permits	5
4 permits	4
3 permits	3
2 permits	2
1 permit	1
None	0





# 8. FEES COLLECTED

Over \$1500	6
\$1201 to \$1500	5
\$901 to \$1200	4
\$601 to \$900	3
\$301 to \$600	2
\$51 to \$300	1
\$0 to \$50	0

# 9. SPECIAL DESIGNATIONS

Congressional Designations	5
Secretarial Designations	4
State Director or District Manager	2
No Special Designation other than RMA	1

# 10. COMMERCIAL PERMITS

2 permits	2
1 permit	1
None	0

# RECREATION ANALYSIS FOR SALT LAKE

RMA# 1	RMA# 2	RMA# 3	RMA# 4	RMA# 5	SUM
--------	--------	--------	--------	--------	-----

VISITS

VISITOR DAY

COMPT PERM

FAC INVES

FAC SITES

CAMP UNITS

NONCOM PER

FEES

DESIGNAT.

COM PERM

SUM





# RECREATION ANALYSIS FOR CEDAR CITY

How many RMAs will be analyzed (up to 5)? 5

## WORKLOAD

## POINTS

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### 1. VISITS--Number of people

Over 25,000	16
20,001 to 25,000	14
17,501 to 20,000	12
15,001 to 17,500	10
12,501 to 15,000	8
10,001 to 12,500	6
7501 to 10,000	4
5001 to 7500	3
2501 to 5000	2
Fewer than 2500	1

### 2. VISITOR DAYS-length of stay

Over 250,000	15
225,001 to 250,000	13
200,001 to 225,000	11
175,001 to 200,000	9
150,001 to 175,000	7
125,001 to 150,000	5
100,001 to 125,000	4
50,001 to 100,000	3
25,001 to 50,000	2
Fewer than 25,000	1

### 3. INVESTMENT IN PRESENT MANAGEMENT

Covered by a completed activity plan, Federal Register published management procedures and the land use plan	13
Covered by 2 of the above	10
Covered by 1 of the above	5
Covered by some identifiable planning (not above)	2
Not specifically addressed in any plan	0





#### 4. FACILITIES INVESTMENT-Replacement Value

Over \$75,000	12
\$67,001 to \$75,000	10
\$58,001 to \$67,000	8
\$50,001 to \$58,000	7
\$42,001 to \$50,000	6
\$34,001 to \$42,000	5
\$26,001 to \$34,000	4
\$18,001 to \$26,000	3
\$10,001 to \$18,000	2
Less than \$10,000	1

*& SEMI*

#### 5. DEVELOPED SITES IN THE RMA

3 or more	10
2 sites	6
1 site	3
No sites	0

Developed Site:Water, Fine grates, Toilet, Garbage collection

#### 6. FEES/REVENUES

Over \$2500	8
\$2101 to \$2500	7
\$1701 to \$2100	6
\$1301 to \$1700	5
\$901 to \$1300	4
\$501 to \$900	3
\$100 to \$500	2
Less than \$100	1
No fees or revenues collected	0

#### 7. NONCOMMERCIAL PERMITS

Over 750	7
601 to 750	6
451 to 600	5
301 to 450	4
151 to 300	3
51 to 150	2
1 to 50	1
None	0

#### 8. PUBLIC SAFETY CONCERNS

3 or more deaths in the last 3 years	8
1 to 3 deaths in the last 3 years	6
3 or more serious injuries in the last 3 years	4
1 to 3 serious injuries in the last 3 years	3
Some safety concern recognized by the state or county	1
Low risk activities	0





# 9. UNDEVELOPED SITES--from District inventory

Over 20 sites in the RMA	6
17 to 20 sites	5
13 to 16 sites	4
9 to 12 sites	3
5 to 8 sites	2
1 to 4 sites	1
No sites in the RMA	0

# 10. COMMERCIAL PERMITS

Over 5 permits	6
5 permits	5
4 permits	4
3 permits	3
2 permits	2
1 permit	1
None	0

# RECREATION ANALYSIS FOR CEDAR CITY

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	RMA# 5	SUM
--	--------	--------	--------	--------	--------	-----

VISITS

VISITOR DAY

MGMT INVEST

FAC INVEST

DEV SITES

FEES/REV.

NONCOM PER

SAFETY

UNDEV SITE

M PERM

SUM

UNDEVELOPED SITES--FROM DISTRICT INVENTORIES

Over 20 sites in the NW  
17 to 20 sites  
13 to 14 sites  
9 to 12 sites  
5 to 8 sites  
1 to 4 sites  
No sites in the SW

UNDEVELOPED

COMMERCIAL PERMITS

Over 2 permits  
5 permits  
4 permits  
3 permits  
2 permits  
1 permit  
None

COMMERCIAL

RECREATION ANALYSIS FOR CROWN CITY

Phase 1: Phase 2: Phase 3: Phase 4: Phase 5: Phase 6: Phase 7: Phase 8: Phase 9: Phase 10:

UNDEVELOPED  
VISITOR DAY  
WATER TRAIL  
FISH TRAIL  
BOAT TRAIL  
FISH TRAIL  
WATER TRAIL  
VISITOR DAY  
UNDEVELOPED



# RECREATION ANALYSIS FOR RICHFIELD

How many RMAs will be analyzed (up to 5)? 5

## WORKLOAD

## POINTS

### 1. VISITOR HOURS--length of stay

Over 900,000	20
750,001 to 900,000	18
650,001 to 750,000	16
550,001 to 650,000	14
450,001 to 550,000	12
350,001 to 450,000	10
250,001 to 350,000	8
150,001 to 250,000	6
50,001 to 150,000	4
1 to 50,000	2

### 2. VISITS--number of people

Over 90,000	17
80,001 to 90,000	16
70,001 to 80,000	14
60,001 to 70,000	12
50,001 to 60,000	10
40,001 to 50,000	8
30,001 to 40,000	6
20,001 to 30,000	4
10,001 to 20,000	2
Fewer than 10,000	1

### 3. ACRES UNDER DESIGNATION

Over 60,000	12
50,001 to 60,000	10
40,001 to 50,000	8
30,001 to 40,000	6
25,001 to 30,000	5
20,001 to 25,000	4
15,001 to 20,000	3
10,001 to 15,000	2
Fewer than 10,000	1

Designation: SRMA, SD/DM, Secretarial or Congressional





#### 4. COMMERCIAL PERMITS

Over 9 permits	10
9 permits	9
8 permits	8
7 permits	7
6 permits	6
5 permits	5
4 permits	4
3 permits	3
2 permits	2
1 permit	1
No permits	0

#### 5. COMPETITIVE PERMITS

Over 9 permits	10
9 permits	9
8 permits	8
7 permits	7
6 permits	6
5 permits	5
4 permits	4
3 permits	3
2 permits	2
1 permit	1
No permits	0

#### 6. FACILITY UNITS--developed and semideveloped sites

Over 80	9
71 to 80	8
61 to 70	7
51 to 60	6
41 to 50	5
31 to 40	4
21 to 30	3
11 to 20	2
1 to 10	1
None	0

#### 7. UNDEVELOPED SITES

Over 25 identified locations	8
22 to 25 identified locations	7
18 to 21 identified locations	6
14 to 17 identified locations	5
10 to 13 identified locations	4
6 to 9 identified locations	3
3 to 5 identified locations	2
1 or 2 identified locations	1
No identified undeveloped sites	0

# 1. COMMERCIAL RESULTS

12	Over 7 permits
11	7 permits
10	6 permits
9	5 permits
8	4 permits
7	3 permits
6	2 permits
5	1 permit
4	0 permits
3	
2	
1	
0	

# 2. COMPETITIVE RESULTS

12	Over 7 permits
11	7 permits
10	6 permits
9	5 permits
8	4 permits
7	3 permits
6	2 permits
5	1 permit
4	0 permits
3	
2	
1	
0	

# 3. FACILITIES LOCATED AND ANTICIPATED SITES

12	Over 25
11	25 to 50
10	51 to 75
9	76 to 100
8	101 to 125
7	126 to 150
6	151 to 175
5	176 to 200
4	201 to 225
3	226 to 250
2	251 to 275
1	276 to 300
0	301 to 325

# 4. UNDEVELOPED SITES

12	Over 25 identified locations
11	25 to 50 identified locations
10	51 to 75 identified locations
9	76 to 100 identified locations
8	101 to 125 identified locations
7	126 to 150 identified locations
6	151 to 175 identified locations
5	176 to 200 identified locations
4	201 to 225 identified locations
3	226 to 250 identified locations
2	251 to 275 identified locations
1	276 to 300 identified locations
0	301 to 325 identified locations



# RECREATION ANALYSIS FOR RICHFIELD DIST

## 8. SERVICE CONTRACTS--for recreation maintenance

Over 3 contracts	5
3 contracts	3
2 contracts	2
1 contract	1
No contracts	0

## 9. MILES OF RECREATIONAL TRAIL

Over 50	5
41 to 50	4
31 to 40	3
21 to 30	2
1 to 20	1

## 10. FEES COLLECTED

Over \$75,000	4
\$25,001 to \$75,000	3
\$5,001 to \$25,000	2
\$100 to \$5000	1
Less than \$100	0

## RECREATION ANALYSIS FOR RICHFIELD

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	RMA# 5	SUM
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VISITOR DAY

VISITS

DES ACRE

COM PERMIT

COMPT PER

FAC UNIT

UNDEV SITE

CONTRACTS

MI TRAIL

FEES

SUM

# 8. SERVICE CONTRACTS—FOR RECREATION MAINTENANCE

Over 2 contracts  
2 contracts  
2 contracts  
1 contract  
No contracts

## 9. MILES OF RECREATION TRAIL

Over 25  
21 to 25  
16 to 20  
11 to 15  
6 to 10

## 10. FEES COLLECTED

Over \$75,000  
\$25,001 to \$75,000  
\$5,001 to \$25,000  
\$1,001 to \$5,000  
Less than \$100

## RECREATION MAINTENANCE FOR RECREATION

Year 1 Year 2 Year 3 Year 4 Year 5

Visit Day

Visit

See Area

Cost Rent

Cost Fee

Cost Unit

Lower Size

Contracts

Trail

See

See



# RECREATION ANALYSIS FOR MOAB DIST

How many RMAs will be analyzed (up to 5)? 4

## WORKLOAD

## POINTS

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### 1. NONCOMMERCIAL PERMITS--include calendaring, compliance..

Over 750	20
676 to 750	18
601 to 675	16
526 to 600	14
451 to 525	12
376 to 450	10
301 to 375	8
226 to 300	6
151 to 225	4
1 to 150	2
None	0

### 2. COMMERCIAL PERMITTEES

Over 30	15
27 to 30	13
23 to 26	11
19 to 22	9
15 to 18	7
11 to 14	5
8 to 10	4
5 to 7	3
3 or 4	2
1 or 2	1

### 3. COMPETITIVE PERMITS

10 or more	10
9 permits	9
8 permits	8
7 permits	7
6 permits	6
5 permits	5
4 permits	4
3 permits	3
2 permits	2
1 permit	1
No permits	0





#### 4. VISITOR HOURS--length of stay

Over 900,000	10
750,001 to 900,000	9
650,001 to 750,000	8
550,001 to 650,000	7
450,001 to 550,000	6
350,001 to 450,000	5
250,001 to 350,000	4
150,001 to 250,000	3
50,001 to 150,000	2
Fewer than 50,000	1

#### 5. VISITS--number of people

Over 10,000	10
80,001 to 90,000	9
70,001 to 80,000	8
60,001 to 70,000	7
50,001 to 60,000	6
40,001 to 50,000	5
30,001 to 40,000	4
20,001 to 30,000	3
10,001 to 20,000	2
Fewer than 10,000	1

#### 6. FEES COLLECTED

Over \$60,000	10
\$45,001 to \$60,000	9
\$35,001 to \$45,000	8
\$25,001 to \$35,000	7
\$15,001 to \$25,000	6
\$10,001 to \$15,000	5
\$5001 to \$10,000	4
\$1001 to \$5000	3
\$501 to \$1000	2
\$1 to \$500	1
None	0

#### 7. FACILITIES INVESTMENT

Includes 2 or more situations eligible for 3 or 4 points-5	5
Includes a LWCF site or a major facility	4
Includes 2 or more semi-developed sites	3
Includes a semi-developed site	2
Has some facilities but no table,grate,toilet or water	1
No Facilities	0

Major Facility: residence, warehouse, workshed, visitor center  
 LWCF site: tables, fire grates, trash collection, water&toilets

# 4. VISITOR HOURS--length of stay

10  
9  
8  
7  
6  
5  
4  
3  
2  
1

Over 900,000  
750,001 to 900,000  
600,001 to 750,000  
450,001 to 600,000  
300,001 to 450,000  
150,001 to 300,000  
75,001 to 150,000  
25,001 to 75,000  
Fewer than 25,000

## 5. VISITS--number of people

10  
9  
8  
7  
6  
5  
4  
3  
2  
1

Over 15,000  
10,001 to 15,000  
5,001 to 10,000  
2,501 to 5,000  
1,001 to 2,500  
501 to 1,000  
251 to 500  
101 to 250  
51 to 100  
Fewer than 50

## 6. FEES COLLECTED

10  
9  
8  
7  
6  
5  
4  
3  
2  
1

Over \$25,000  
\$15,001 to \$25,000  
\$10,001 to \$15,000  
\$5,001 to \$10,000  
\$2,501 to \$5,000  
\$1,001 to \$2,500  
\$501 to \$1,000  
\$251 to \$500  
\$101 to \$250  
\$51 to \$100  
Fewer than \$50

## 7. FACILITIES INVESTMENT

10  
9  
8  
7  
6  
5  
4  
3  
2  
1

Includes 2 or more facilities: swimming pool, picnic grounds, playground, etc.  
Includes 1 facility: swimming pool, picnic grounds, playground, etc.  
Includes 1 or more small facilities: picnic grounds, playground, etc.  
Includes 1 small facility: picnic grounds, playground, etc.  
Includes 1 or more facilities: picnic grounds, playground, etc.  
Includes 1 small facility: picnic grounds, playground, etc.  
Includes 1 or more facilities: picnic grounds, playground, etc.  
Includes 1 small facility: picnic grounds, playground, etc.  
Includes 1 or more facilities: picnic grounds, playground, etc.  
Includes 1 small facility: picnic grounds, playground, etc.

Major facilities: swimming pool, picnic grounds, playground, etc.  
Minor facilities: picnic grounds, playground, etc.



## 8. INVESTMENT IN PRESENT MANAGEMENT

Covered by a completed activity plan, Federal Register published management procedures and the land use plan	5
Covered by 2 of the above	3
Covered by 1 of the above	1
Not specifically addressed in any of the above	0

## 9. SPECIAL DESIGNATIONS

Congressional Designations	5
Secretarial Designations	4
State Director or District Manager	2
No Special Designation other than RMA	1

## 10. PUBLIC SAFETY

3 or more deaths in the last 3 years	5
1 to 3 deaths in the last 3 years	4
3 or more serious injuries in the last 3 years	3
1 to 3 serious injuries in the last 3 years	2
Some safety concern recognized by the State or county	1
Low risk activities	0

## RECREATION ANALYSIS FOR MOAB DIST

RMA# 1 RMA# 2 RMA# 3 RMA# 4 SUM

NONCOM PER

COMMER PERM

COMPT PERM

VIS HOURS

VISITS

FEEES

FAC INVEST

PRES MGMT

DESIGNAT.

SAFETY

SUM

8. INVESTMENT IN FERTILIZER MANAGEMENT

Covered by a computerized activity plan, Federal Register  
published management procedures and for land use plan

Covered by 2 of the above

Covered by 1 of the above

Not specifically addressed in any of the above

9. SPECIAL DESIGNATIONS

Designational Designations  
Special Designations  
State Director or District Manager  
No special Designation other than BSA

10. PUBLIC AGENCY

3 or more during the last 5 years  
1 to 2 during the last 5 years  
3 or more during the last 5 years  
1 to 2 during the last 5 years  
Some states consider recognized by the State or County  
Low risk activities

RECREATION FACILITIES FOR HORN BIRD

Table 1: Horn 1, Horn 2, Horn 3, Horn 4

MONTHLY FEE

OTHER FEE

FOOT FEE

WATER FEE

VISIT FEE

FEES

HAC INVEST

FREE WAT

WATER

WATER



Enter your organizational unit.

RECREATION ANALYSIS FOR VERNAL

How many RMAs will be analyzed (up to 5)? 5

WORKLOAD<sup>22</sup>

POINTS

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1. VISITS--Number of people

Over 25,000	40
20,001 to 25,000	36
17,501 to 20,000	32
15,001 to 17,500	28
12,501 to 15,000	24
10,001 to 12,500	20
7501 to 10,000	16
5001 to 7500	12
2501 to 5000	8
Fewer than 2500	4

2. SEMI-DEVELOPED SITES

5 Sites	25
4 Sites	20
3 Sites	15
2 Sites	10
1 Site	5
No Sites	0

3. UNDEVELOPED SITES

Over 20 Sites	15
18 to 20 Sites	13
15 to 17 Sites	11
13 or 14 Sites	9
11 or 12 Sites	7
9 or 10 Sites	5
7 or 8 Sites	4
5 or 6 Sites	3
3 or 4 Sites	2
1 or 2 Sites	1

4. VISITOR DAYS--Length of stay

Over 50,000	10
40,001 to 50,000	9
35,001 to 40,000	8
30,001 to 35,000	7
25,001 to 30,000	6
20,001 to 25,000	5
15,001 to 20,000	4
10,001 to 15,000	3
5001 to 10,000	2
Fewer than 5000	1

How many forms will be analyzed up to 500 5

POINTS

WORKING

### 1. VISITOR-LENGTH OF STAY

Over 35,000	40
20,001 to 35,000	35
15,001 to 20,000	30
10,001 to 15,000	25
5,001 to 10,000	20
1,001 to 5,000	15
501 to 1,000	10
101 to 500	5
Less than 100	0

### 2. NIGHT-DEVELOPED SITE

No Site	0
1 Site	5
2 Sites	10
3 Sites	15
4 Sites	20
5 Sites	25

### 3. DEVELOPED SITE

1 or 2 Sites	1
3 or 4 Sites	2
5 or 6 Sites	3
7 or 8 Sites	4
9 or 10 Sites	5
11 or 12 Sites	6
13 or 14 Sites	7
15 or 16 Sites	8
17 or 18 Sites	9
19 or 20 Sites	10
Over 20 Sites	11

### 4. VISITOR DAYS-LENGTH OF STAY

Over 35,000	10
20,001 to 35,000	9
15,001 to 20,000	8
10,001 to 15,000	7
5,001 to 10,000	6
1,001 to 5,000	5
501 to 1,000	4
101 to 500	3
101 to 500	2
101 to 500	1



## 5. ACTIVITY PLANNING

Activity Plan(s) Completed	5
Activity Plan Not Completed	0

## 6. SPECIAL DESIGNATIONS

Congressional Designations	5
Secretarial Designations	4
State Director or District Manager	2
No Special Designation other than RMA	1

## RECREATION ANALYSIS FOR VERNAL

	RMA# 1	RMA# 2	RMA# 3	RMA# 4	RMA# 5	SUM
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VISITS

SEMDEV SITE

UNDEV SITE

VIS. DAYS

ACT PLAN

SP. DESIG.

SUM

